

# ONION CREEK METROPOLITAN PARK MASTER PLAN REPORT 2015

TEAM:













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# PROJECT BACKGROUND

# BACKGROUND

# Onion Creek Metropolitan Park

The Onion Creek Metro Park is **555-acres of parkland** located in southeast Travis County, along 2.5 miles of Onion Creek. The city-owned park is relatively flat, wooded and sits undeveloped. The 180-acre Onion Creek Greenbelt is north of the Onion Creek, which is 79 miles in length. The Onion Creek Metro Park was purchased by the City of Austin in the late 1990s, making it the largest city-owned park in Austin. Nearly 15 years later, a new special district creates a funding source and opportunity for long-term, ongoing maintenance to be used to build and maintain the parkland.

Answering the question, "What can OCMP become?" is the central focus of the Onion Creek Metro Park Master Plan. Based on input from residents, community leaders and city planners, a master plan was developed for the 555-acre regional park. The master planning process was conducted in two phases and took into account input from nearby residents, as well as the general public.

PHASE 1 - Vision Plan : Presents the framework and goals of the project.

PHASE 2 - Master Plan : Presents the site program, layout and character of the project

# The Following Master Plan Report:

- -Provides a site inventory and analysis of environmental opportunities and constraints.
- -Compares projects of similar size, context, and user demographics.
- -Establishes park character relative to ecology, historic and cultural significance, anticipated users, economics, and long term maintenance.

-Informed a master plan where planners incorporated highly developed design solutions for landscape types, activities, and programming needs, relative to site specific form, function, cost, and phasing.

Austinites were asked to think about what they would like to see in the park over the next 20 years. They were also asked to place a value ranking on

- a. Environmental Sustainability
- b. Access to Natural Open Spaces
- c. Community Connections
- d. Regional Park and Trail Connections
- e. Culture Based Programs
- f. Education Opportunities

In addition to public input, ecology has also played an important role in the search for an identity for the park. Onion Creek Metro Park is located in the Southeastern part of Austin, an area rapidly growing and developing to meet the city's housing demands. The site occupies 555 acres in a 181,106 acre watershed along 2.5 miles of Onion Creek. Over half the site is located in the floodplain. Water is a key organizational strategy of the project.

The changes in topography and soil types across the site support a variety of ecological communities such as loamy bottomland forest and oak savannahs. Moving forward, the goal will be to assess and amend the health of these unique vegetation communities through management.

The vision plan was informed in part by input from the public meeting and site analysis information collected during the investigation. The vision plan is **sensitive to existing conditions on site** and projects potential character typologies. The four typologies (Natural,

Passive, Active, and Cultural) provide a spectrum for interventions in the park.

Interventions in the park include ideas for:

- Improvements to open spaces and the Onion Creek riparian corridor.
- Accessible trails for walking, running,
- Existing dog park
- Existing equestrian activities
- Play fields
- Areas in the park for gatherings.
- Recreation or multi-entertainment facilities
- Exercise areas
- Educational opportunities

Onion Creek Metro Park will be a park of multi-faceted character. It will meet the needs of a regional population as well as a local population. These park users will have the ability to participate and engage in a variety of activities that are both planned and spontaneous. The cross-section of activities and spaces within the park will represent the cross-section of the people who will use this park. There will be something to do ranging from observation of nature and leisure time to more active moments and cultural events. The vision for Onion Creek Metropolitan Park is one of inclusivity for all ages, abilities, social economic statuses and variety of interests.

The Austin Parks Foundation led the planning process in collaboration with the City of Austin Parks and Recreation Department. The Master Plan was completed in the summer of 2015.



NATURAL



PASSIVE





CULTURAL

# TIMELINE

FEB 12, 2014:

PUBLIC OUTREACH

PROJECT KICK-OFF + SITE ANALYSIS COMPLETED

MAR 04, 2014:

PUBLIC OUTREACH

PUBLIC OUTREACH

VISIONING WORKSHOP, MENDEZ MIDDLE SCHOOL

MAY 05 2014:

VISION PLAN REPORT

SEP 11, 2014:

PUBLIC OUTREACH

OPPORTUNITIES AND CONSTRAINTS WORKSHOP, BLAZIER ELEMENTARY

DEC 04, 2014:

SCENARIOS WORKSHOP, BLAZIER ELEMENTARY

MAR 12, 2015:

PRESENTATION OF FINAL DRAFT PLAN, WIDEN ELEMENTARY

APR 28, 2015:

UNANIMOUS APPROVAL BY PARKS AND RECREATION BOARD

MAY 27, 2015:

OPEN SPACE, ENVIRONMENT AND SUSTAINABILITY COMMITTEE

FINAL MASTER PLAN PRESENATION TO COUNCIL + FINAL REPORT

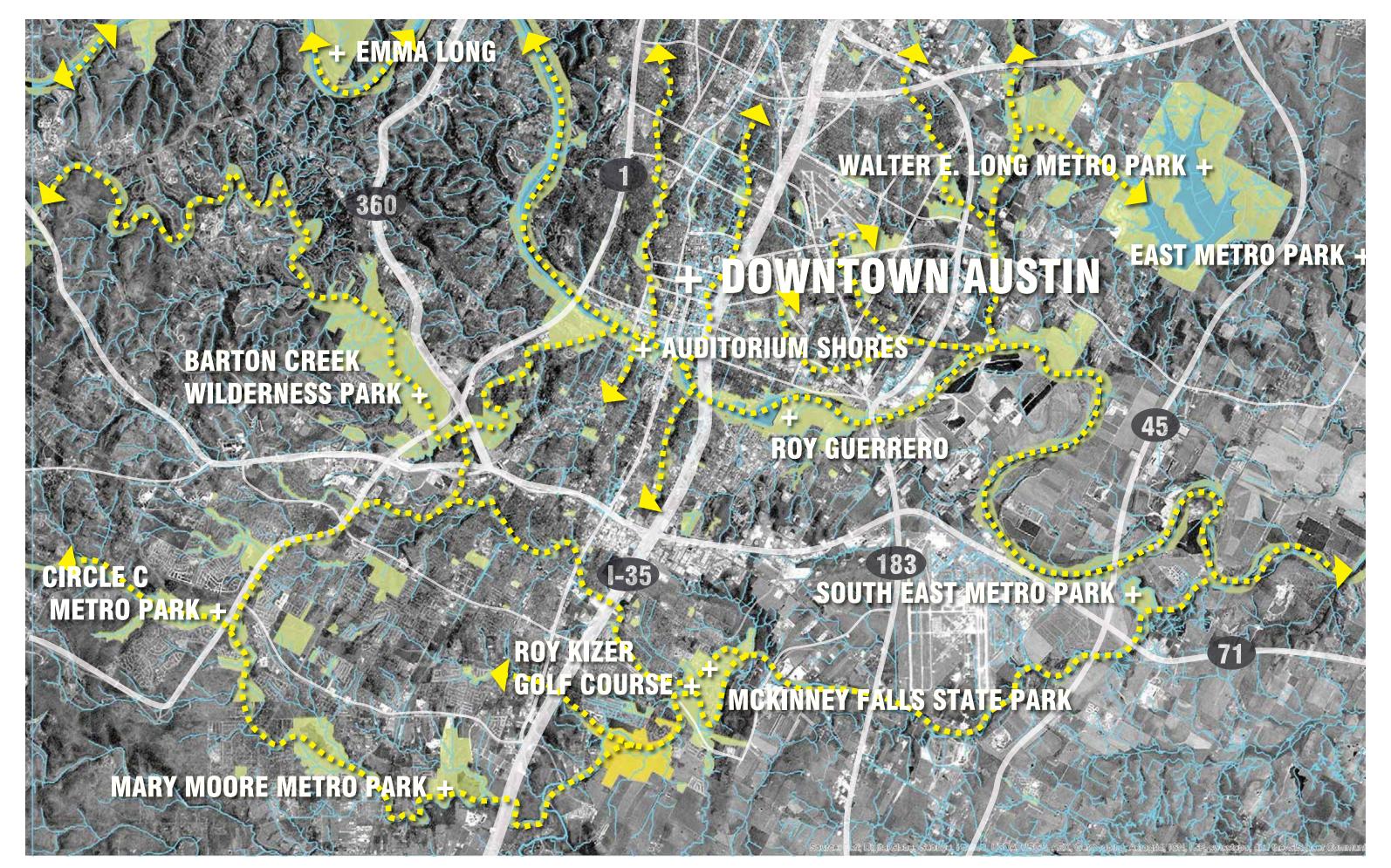
# SCOPE OF WORK

STAGE 1.0	SITE	ANALYSIS	AND	RESEARCH

- STAGE 2.0 VISIONING WORKSHOP
- STAGE 3.0 VISION PLAN
- STAGE 4.0 OPPORTUNITIES AND CONSTRAINTS WORKSHOP
- STAGE 5.0 PARK PROGRAMMING AND FRAMEWORK PLAN ALTERNATIVES
- STAGE 6.0 SCENARIOS WORKSHOP
- STAGE 7.0 PRELIMINARY MASTER PLAN
- STAGE 8.0 FINAL DRAFT PLAN PRESENATION





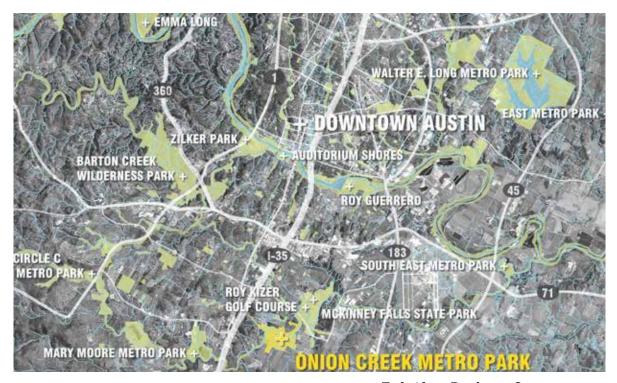


# GREEN CORRIDORS

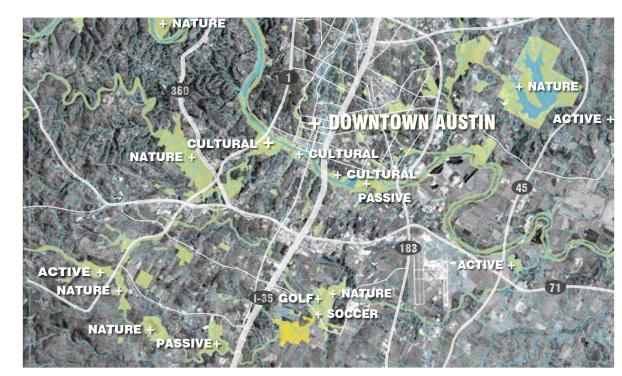
Onion Creek Metropolitan Park is 550 acres of parkland located in Southeast Austin in an area projected to grow rapidly by 2039. The design team's scope of work included providing a Vision Plan, Framework Plan and finally a Master Plan that incorporated a variety of stakeholders' needs and desires.

One of the most defining challenges/opportunities the design team faced when shaping the project was the need to balance the existing neighborhood's daily use of the park and desire to keep the land largely undeveloped with the imminent need to re-imagine the land as a regional park serving a greater population yet to come.

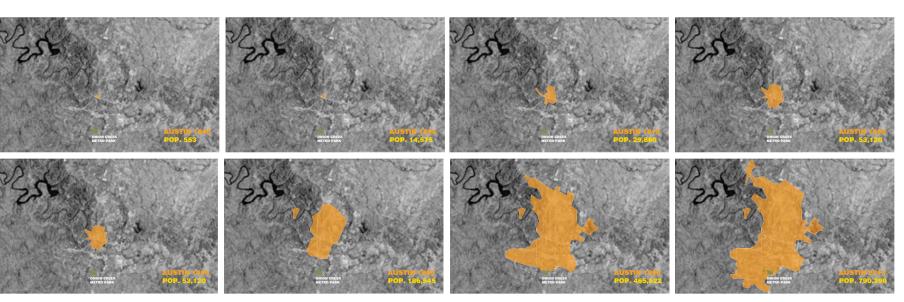
Goodnight, is a special district south of the park expected to add over 3,533 households to the area adjacent to the sitev.



Existing Parks + Greenspace



Existing Parks + Greenspace Character



**Historic Growth Trends** 

# AUSTIN PARKS PARQUES DE AUSTIN SANTANIO SANT

# ZILKER METRO PARK

AUSTON METER PARK



ACTIVE PASSIVE NATURAL

GAMBOUTE PITE: 2

OFF-LEASH DOG AREA: 4

PERMANELE FACELITIES -6

EXPENSIVE COUNTY -2

REPLANCE COUNTY -2

REPLANCE COUNTY -2

RESETBALL COUNTY -2

RESETBALL COUNTY -2

REPLANCE COUNTY -

AUSTIN'S FRONT YARD BARTON SPRINGS LARGE FESTIVALS URBAN PARK





# AUSTIN PARK CHARACTER CARACTERES DE LOS PARQUES



ROY G. GUERRERO RIVER PARK

PLAYGROUNDS 1
BASEBALL FIELDS 14
SOFTBALL FIELDS 12
VOLLEYBALL COURTS 2
COLF COURSE
EXERCISE TRAIL
BEACH PALY
PICHIC SHEATERS 1
PICHIC SHEATERS 25
TRAILS 23
FOREST
LADY BIRD LAKE
FLOODPLAIR PRAIRIE

PASSIVE SPORTS AND RECREATION COMMUNITY PARK





# **GREENWAY CONNECTIONS** CONEXIONES POR VÍAS VERDES



MCKINNEY FALLS STATE PARK

THE ACCRET



PASSIVE MATURAL ATURAL SWIMMING

HATURAL SWIMMING - I
PICHIC TABLES - 3
TRAILS
CAMPING
FISHING
HISTORIC RUINS
WILDLIFE HABITAT
HATURE PRESERVE
NATURAL FOCK FORMATIONS
MATURAL STREAM

NATURE PARK MEAR OMION CREEK PARK





**Local Park Precedents** 

# BRAZOS RIVER PARK

SUGARLAND, TEXAS

FORMER
FARMLAND
RIVER
RESTORATION
ROOMS WITHIN
A LANDSCAPE



# PHIL HARDBERGER PARK

SAN ANTONIO, TEXAS STEVE STIMSON ASSOCIATES AND D.I.R.T. STUDIO

311 ACRES
FORMER DAIRY
FARM
FRAMED
SPACES
75% PRESERVATION

25% RECREATION



# SHELBY FARMS PARK

MEMPHIS, TENNESSEE FIELD OPERATIONS 2008

4500 ACRES

FARMLAND

PROGRAMMATIC

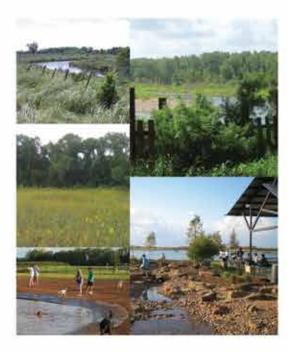
FORMER

SPINE



WOLF RIVER / SHELBY FARI

**AMPHITHEATER** NATURE CENTER DOG PARK PAVILIONS. PLAYGOUND CONCESSIONS MULTIPURPOSE FIELDS FAMILY CENTER FESTIVAL SITE CRICKET FIELD MOUNTAIN BIKING BASKETBALL COURTS DISC GOLF CANOEING PICNIC AREAS OVERLOOKS **NATURE TRAILS** PASTURE LAKES MEADOW PONDS



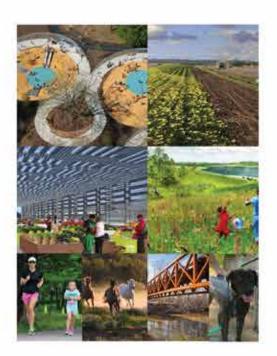
EDUCATION CENTER
PICNIC AREAS
OUTDOOR CLASSROOMS
PLAYGROUNDS
DOG PARK
BASKETBALL
THAIL SYSTEM
OPEN FIELDS
BIRD VIEWING AREA
OVERLOOKS
RESTORATION
PRESERVATION
WILDLIFE BRIDGE
URBAN ECOLOGY CENTER
WATER CONSERVATION

E PASSIVE HATURAL



DOG PARK
EDUCATION CENTER
BIKE RENTALS
FARM TO FORK FELLOWSHIP
LASTERTAC/PAINTBALL
PICNIC PAVILIONS
AMPHITHTEATER
ART MOUND
KITE FLYING AREA
OUTDOOR CLASSROOM
WEDDINGS
PUBLIC GARDENS
AOVENTURE PLAY
EXERCISE TRAIL
EARTH DAY SK
DISC GOLF
BMX
RECREATIONAL LAKE
BOATING

E COLTUILLE E ACTIVE E PASSIVE E HATURAL



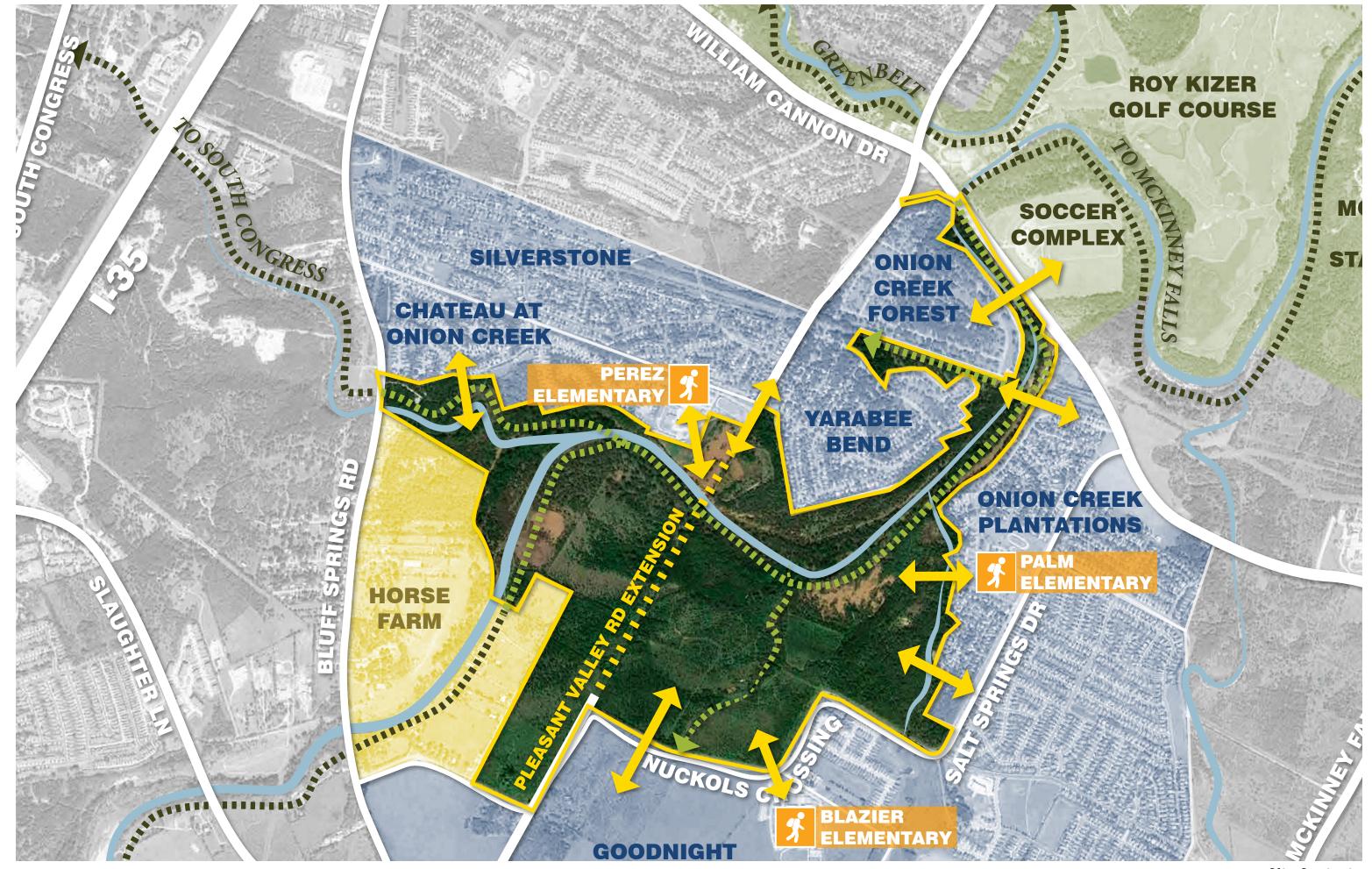
NATURE

**PASSIVE** 

**ACTIVE** 

CULTURAL

Similar Scale Park Precedents



# -1 MILE -3 MILES -1.5 MILES **End to End Distance Interior Loop** 28% 145 ACRES -2.5 MILES creekside -**72%** 410 ACRES

# **EXISTING CONDITIONS**

Onion Creek Metropolitan Park also sits as a significant connection east to west along the Onion Creek Greenbelt, stitching into the Onion Creek Soccer Complex and McKinney Falls State Park.

Directly adjacent to the park sit three elementary schools. The park is an excellent opportunity to provide educational and athletic opporunities to these children.

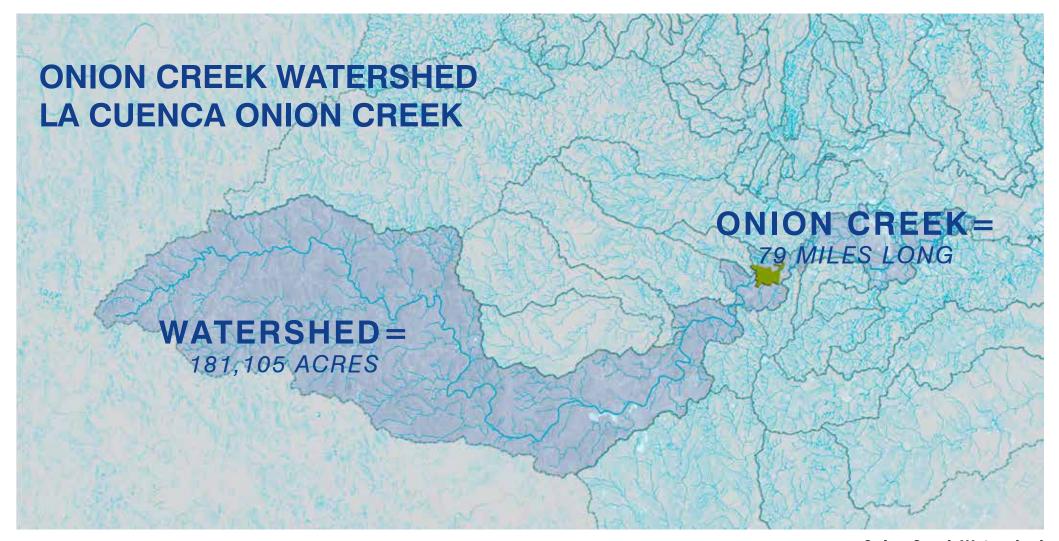
Situated across the west side of the park are a series of horse farms. These equestrians currently use the on a regular basis. This existing program was incorporated into the master plan for the park after input from this set of stakeholders.

Area Breakdown Creekside Access









# **Onion Creek Watershed**





Acres of Park in the Floodplain

# FLOODPLAIN + CONSTRAINTS

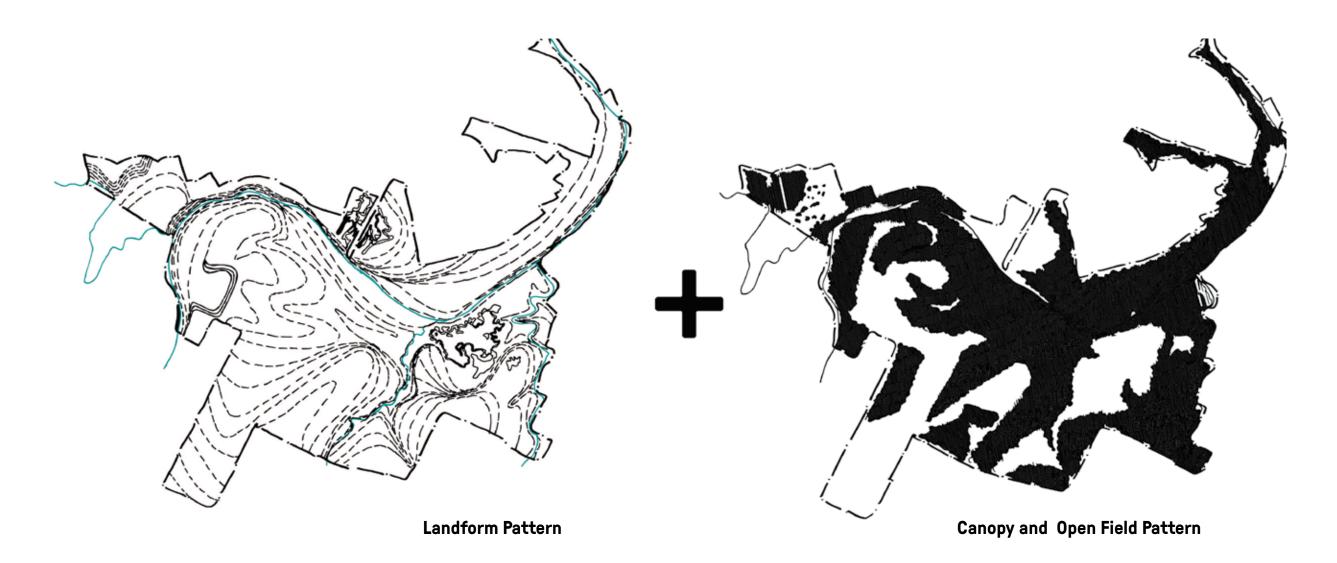
# FLOODPLAIN DEFINITION

Depending on how much rain there's been, Austin's creeks may be bone dry, gently flowing with water or a raging torrent. The floodplain is the area of land that is likely to be under water when the creek rushes over its banks. In a sense, the floodplain is the full extension of the creek.

The 100-year floodplain is the land that is predicted to flood during a 100-year storm, which has a 1% chance of occurring in any given year. You may also hear the 100year floodplain called the 1% annual chance floodplain or base flood. Areas within the 100-year floodplain may flood in much smaller storms as well. The 100-year floodplain is used by FEMA to administer the federal flood insurance program and the City of Austin to regulate development.

One of the things we have addressed in our public meetings is the misconception that this park will solve flooding problems in the area. As the diagram on the left shows, this park is a small portion of a much larger watershed with far more complex water management issues. The masterplan does however, take the approach that this effort should be viewed as a demonstration project for how to incorporate green infrastructure and Low Impact Development techniques into public parks as an educational and interpretive feature. Low Impact Development strategies include, native landscape plantings that can filter and treat the first flush of stormwater run off as well as the use of permeable materials in place of traditional hardscape surfaces.

Additionally, the US Army Corps of Engineers is currently in the process of designing and building adjacent park facilities to the north of our site as a separate project.



# **TOPOGRAPHY**

**SLOPE:** How quickly does the elevation change?

ASPECT: Which direction does the slope face?

**DRAINAGE:** Where does the water flow?

# **VEGETATION PATTERNS**

**COMMUNITY:** What type of plant community is present?







SPECIES COMPOSITION: What type of species are growing in a given area



COVERAGE: How much of the ground is covered in vegetation

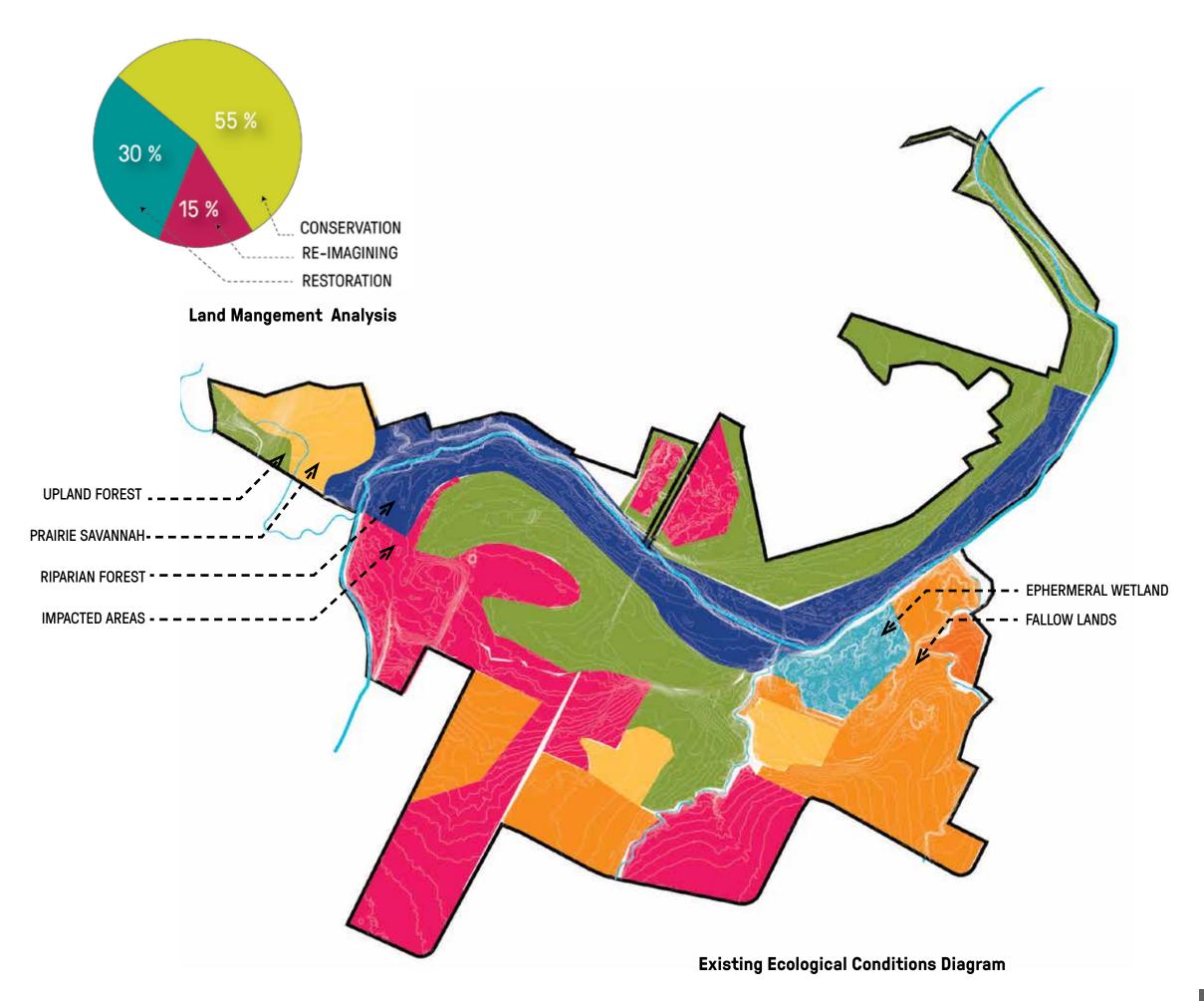






**DENSITY:** How far apart are plants growing from each other





# **ECOLOGY**

The ecological site analysis conducted by the design team provided the framework on which many of the decisions regarding character, program and access were made. New program is concentrated in areas with low ecological value and easy access with respect to existing topographic conditions. Aproximately 85% of the site is devoted to restoration and conservation of ecosystem services. Currently, the geomorphology of the site supports four major ecological communities.

UPLAND FOREST consists of a hardwood canopy coverage greater than 40%. Understory consists of shrubs such as Mexican Buckeye and cool season grasses such as Texas Wintergrass and Cedar Sedge. Shade loving vegetation like Inland Sea Oats will also find their niche in this community.

RIPARIAN FOREST structures itself around water. Mature Bald Cypress trees can be found dotting the banks of the creek as well as forb species such as Phlox and Chervil. These areas are opportunities to do restoration and low impact development as well as provide opportunities for education and engagement with the water.

**EPHEMERAL WETLANDS** occur adjacent to this community where topography allows water to pool after large rain events.

PRAIRIE is present where there are deeper soils that provide the depth midgrasses such as silverbluestem and Side Oats Grama thrive in. Also present in this community are annual wildflowers such as Indian Blanket, Horsemint, and Black-Eyed Susan. Hardwood canopy cover is less than 15% The structure of this community provides habitat for several of the species that migrate through central Texas. SAVANNAH occurs where is typically between 15-30% hardwood canopy coverage and an understory comprised of short to mid grasses and forbs.

Historically, landuse patterns on the site included agricultural practices and mining activities. These have resulted in **HIGHLY IMPACTED AREAS** and **FALLOW LANDS** which produce very little interms of ecosystem services but offer opportunity for program.



**Vision Plan** 

DUCK RACE

SPLASH PARK

**BOTANIC GARDENS** 

TRAIN RIDE

**OBSERVATION TOWER** 

**EVENT LAWN** 

**ART INSTALLATIONS** 

# **EQUESTRIAN TRAIL**

# **HAMMOCK GROVE GREAT LAWN**

NATIVE PLANT NURSERY PORCH SWING GROVE

NATURE TRAIL

**BIOSWALES** 

WILDLIFE HABITAT STAR GAZING

PRAIRIE RESTORATION **ECO-LAB** 

**ECO-RESTORATION** 

**FOOD TRUCKS FESTIVAL SPACE AMPHITHEATER** 

OPEN-AIR MARKETS

**EDUCATIONAL CENTER** 

BMX PARK

COMMUNITY GARDENS GROUP PAVILION BASKETBALL

SOCCER

**BIKE SHARE** 

**PICNIC SHELTERS** SPLASH PARK

TRADITIONAL PLAYGROUND **EOUESTRIAN CAMP** 

**DOG PARK** MESOUITE BBQ PITS

**5K EXERCISE TRAIL** PICNIC LAWN

NATURE PLAYGROUND

BONFIRE CIRCLE

**DISC GOLF** 

ADVENTURE FOREST **RECREATION LAKE** 

**CREEK BEACH** 

**Program Thermometer** 

# □ 子 ♂ 云 章 ▲ @ Ø № 只 秋 丛 M 方 / ▼ 木 尓 あ ~ Ø □ ★ △ 図 □ □ □

FOREST RESTORATION PRAIRIE RESTORATION STREAM RESTORATION WILDFLOWER FIELDS BIOSWALES WATER CONSERVATION DETENTION LAKE DEMONSTRATION WETLANDS INVASIVES REMOVAL WILDLIFE HABITAT NATIVE PLANT NURSERY GRAZING ANIMALS NATURE EDUCATION

SUSTAINABLE ENERGY FARM

ECOLOGICAL RESEARCH SITES TREPHOUSES

### NATURE PATHS SEED COLLECTION HAMMOCK GROVE PORCH SWING GROVE GREAT LAWN ACTIVITY MEADOWS GREAT HILL CREEK BEACHES EQUESTRIAN TRAILS STAR GAZING CREEK OVERLOOKS

BIRDING CENTER

PICNIC GROVE

PEDI-CAB

PASSIVE

BOUNCY CASTLES TRAMPOLINES. ADVENTURE PLAYGROUND ADVENTURE FOREST BOXCAR RACING YOGA/PILATES BOOTCAMP WORKOUT STATIONS SK TRAIL LOOP MULTI-USE TRAIL SKATEPARK BIKE TRAILS BIKE SHARE DISC GOLF ARCHERY BADMINTON BOCCE MINIATURE GOLF CROOUET

ICE SKATING

DISC GOLF

SOCCER

FLY FISHING

HORSESHOES

VOLLEYBALL

BASKETBALL

BASEBALL/SOFTBALL

ACTIVE

SPLASH PARK

### TRADITIONAL PLAYGROUND COMMUNITY SPACE MOVIES IN THE PARK WEDDING VENUES FESTIVAL SPACE OUTDOOR MARKET VEHICULAR PARKING BONTIRE CIRCLE VISITOR'S CENTER EDUCATION CENTER CHILDREN'S MUSEUM LIBRARY COMMUNITY GARDENS CAFÉ FOOD TRUCKS MESQUITT BRQ PITS GROUP PAVILION DOG PARK EQUESTRIAN CAMP INSTALLATION ART INTERACTIVE ART ARTSIUDIO SCULPTURE PARK BUTTERFLY GARDEN BOTANIC GARDENS

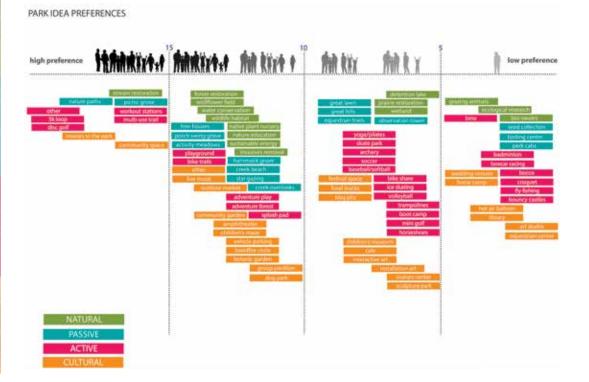
CHILDREN'S MAZE

HOT AIR BALLOON

MODEL AIRPLANES

WIRELESS HUB

# **Program Options**



**Program Character Program Preferences** 

# VISION PLAN ANALYSIS

Both the ecological study and the results from the public survey informed the zoning of the vision plan. Areas that were performing at a healthy ecological function should be preserved and engaged with programs reflected in the NATURAL + PASSIVE categories. Areas with poor ecological performance can be enhanced with ACTIVE + CULTURAL programs.

Considerable amount of vocal support at the VISIONING WORKSHOP related to nature and passive program with a large desire to keep the park as natural as possible, particularly the core of the site along the creek.

The Vision Plan illustrates a large percentage of the site devoted to NATURAL buffered by PASSIVE program with the goal being to preserve the area of the site with the most sensitivity and highest output of ecosystem services. These areas relate directly to their relationship to Onion Creek and the tributary streams that flow into it.

ACTIVE program was distributed in areas with the most potential to make neighborhood connections or in areas where the previous land use impaired the site's ability to be a healthy, self-regulating ecosystem.

CULTURAL nodes were woven into areas of passive recreation mostly kept out of the floodplain.

Floodplain analysis played an important role in the investigation of program possibilities as more than 50% of the site is within the 100- YR Floodplain, constraining the development. Programs that could be designed to survive temporary flooded conditions such as great lawns, amphiteathers and adventure forests were proposed within the floodplain. Structures and activities such as the nature center and community event center were proposed in areas of high ground, outside of the floodplain.



**Final Framework Plan** 



Framework Plan Study



wetland convervation 40 acres disc golf course 11 acres adventure forest 2 acres nature center 2 acres festival grounds 2 acres sports field 1.3 acres porch swing bosque 1 acre hammock grove 1 acre picnic meadow 1 acre tree house woodland 1 acre playground 1 acre community garden 1 acre nature base playground 1 acre work out stations 1/2 acre 30 car parking lot 1/2 acre community pavilion

Framework Plan Study

**Program Size Comparison** 

1/2 acre

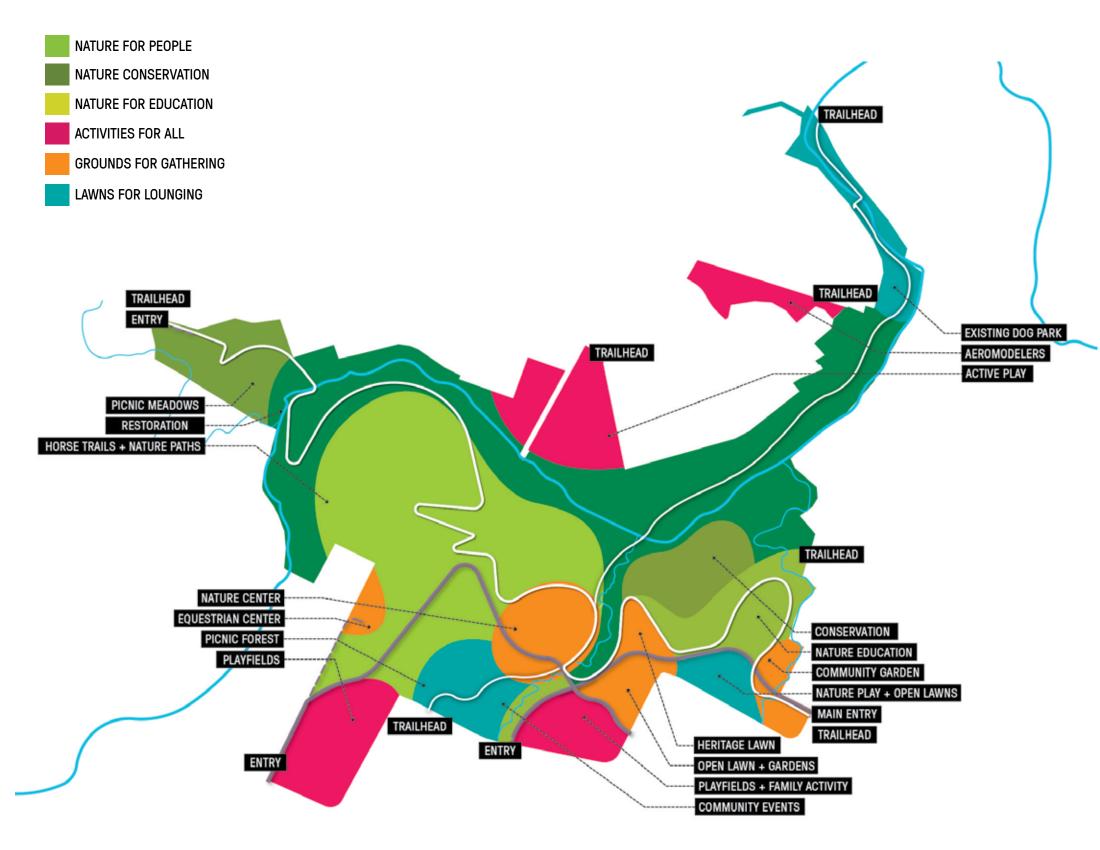
# FRAMEWORK PLAN

The purpose of the Framework Plan is to identify and develop the specific programmatic elements and general areas that will be incorporated into the more detailed Master Plan design of the park.

The team developed the Framework alternatives for the Master Plan based on site analysis including ecological studies, existing uses and input collected from the first public meeting as well as the online survey posted on the City of Austin's website.

This document suggests the character of the uses on site as well as a general location and aproximate size of space required for each.





**Program Diagram** 

# MASTER PLAN

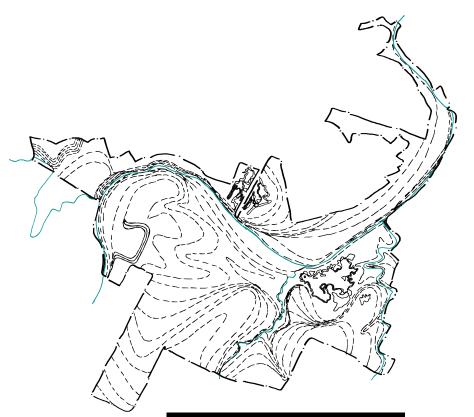
The site is a patchwork matrix of significant ecological communities, including Upland Forest complex, Prairie Savannah, Riparian Woodland and Ephemeral Wetlands which sit atop swirling and swooping topography. The different ecologies of the park unfold along a ribbon like pathway - "The Topographic Ribbon" - that follows the bends and folds of the landscape, weaving the visitor through a rich tapestry of ecological and programmatic characters.

Along the Topographic Ribbon, park users are introduced to a variety of activities, and spaces. The range of programs incorporated into the final Master Plan include areas for active recreation, nature based play, community events, unique sports such as parkour and nature education. The programs take advantage of the site's wide range of character and are situated so that they have the least impact possible on valuable habitat lands and restore use to areas that have been allowed to go fallow and become over grown with invasive species.

Over 50% of the park is in the floodplain, along a volatile creek with development restrictions. The Master Plan took a very light touch approach to these areas, laying out a trail system that allows the visitor to engage the sensitive wetland habitat without compromising its integrity.

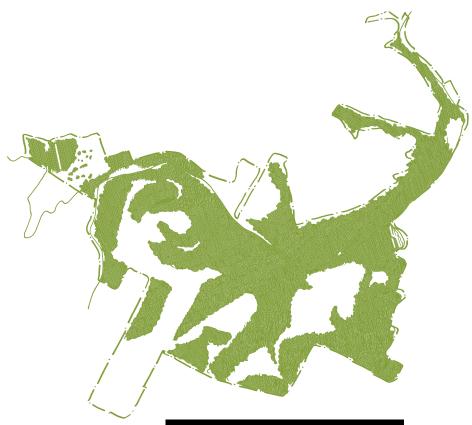
Additionally, extensive rain gardens are featured around areas with high program, intended to catch water from parking lots and hardscape to be cleaned before being slowly released back into the watershed.

pg 29



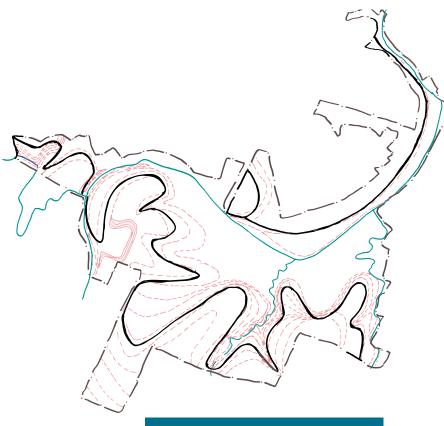
# **TOPOGRAPHY**

FROM GENTLY SLOPING PLAINS TO STEEP RIDGES DROPPING SEVERAL FEET, THE TOPOGRAPHY OF THE SITE PROVIDES THE FOUNDATION FOR A DIVERSE COMMUNITIES OF VEGETATION AND HABITAT.



# **VEGETATION PATTERNS**

THE SITE HAS A WIDE SPECTRUM OF EXISTING ECOLOGIES RANGING FROM RIPARIAN FOREST TO OAK SAVANNAH. OVER HALF THE SITE IS SHADED UNDERNEATH TREE COVER.



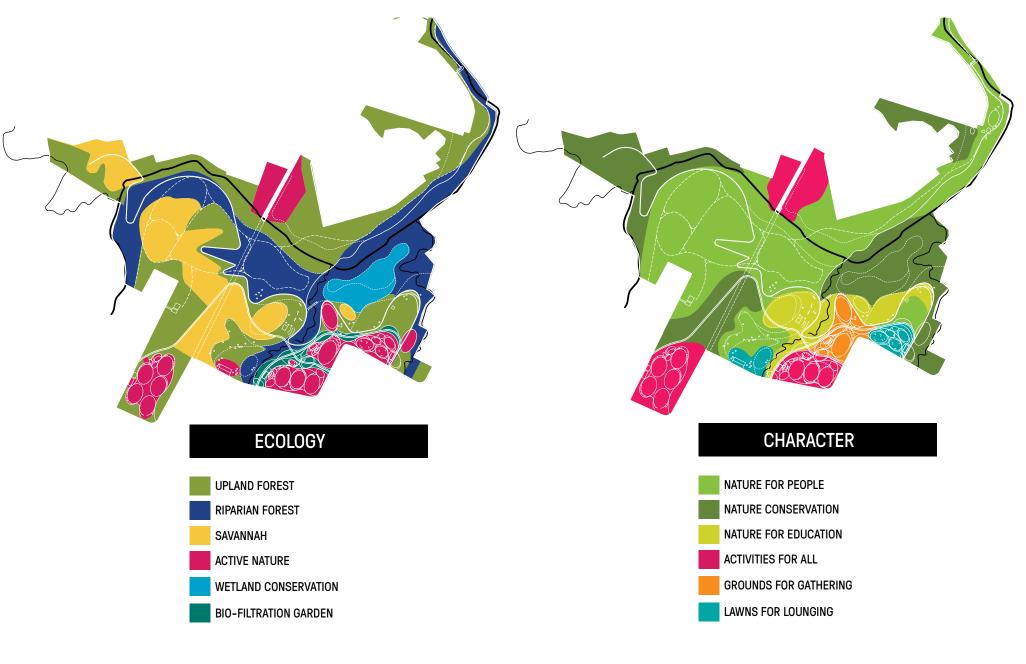
# TOPOGRAPHIC RIBBON

THE DIFFERENT ECOLOGIES OF THE PARK UNFOLD ALONG A RIBBON-LIKE PATHWAY THAT FOLLOWS THE BENDS AND FOLDS OF THE TOPOGRAPHY AND FOREST, WEAVING THE VISITOR THROUGH A RICH TAPESTRY OF ECOLOGICAL AND PROGRAMMATIC CHARACTERS. ALONG THIS PATH, PARK USERS ARE INTRODUCED TO A VARIETY OF ACTIVITIES AND SPACES.













# **DESIGN PROCESS**

In the tradition of landscape analysis that has it's roots with lan McCarg and the seminal text "Design with Nature," the Onion Creek Metro Park design process uses a technique of layering site analysis to reveal overlapping patterns that pair with functional programing needs.

The Master Plan is a design where opportunities arise from site constraints and challenges in that the existing conditions of the site set the tone for where change should occur and where conservation should be a priority.

The conservation approach was supported by public input and feedback as well as the project team site field surveys. Many of the existing park visitors use the trails, topography and vegetation patterns to orient themselves on the site and identify those as markers of a "beautiful" park.

The design of the park negotiates between the different desires of the stakeholder groups involved as well as the needs of the environment.

Some areas of landscape have the potential to become a vibrant and healthy, self regulating system with little intervention. Other areas are prime for re-imagination of use as they are currently in states of degredation or have existing or future user conflicts. The layering of the this analysis set up the framework for the programmatic and circulation strategies of the design, resulting in a palette of unique ecological and active characters.





# INFILTRATION + RECHARGE

Grasslands can yield approximately 100,000 gallons per acre of water recharge over the course of a year. This is equal to the amount of water the average Austine uses in that same year. By increasing the amount of prairies and meadows in the park to 15%, the site's potential for water recharge has increased to approximately 8.25 million gallons of water or equivalent to 82.5 Austinites.



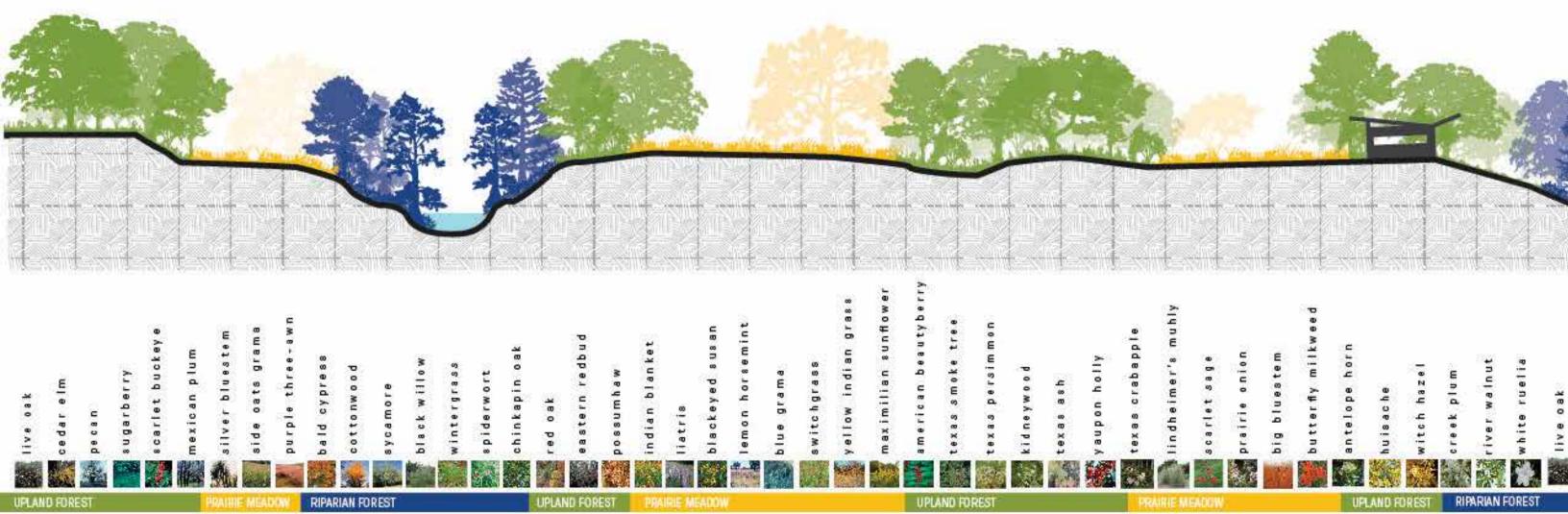
### WATER CLEANSING

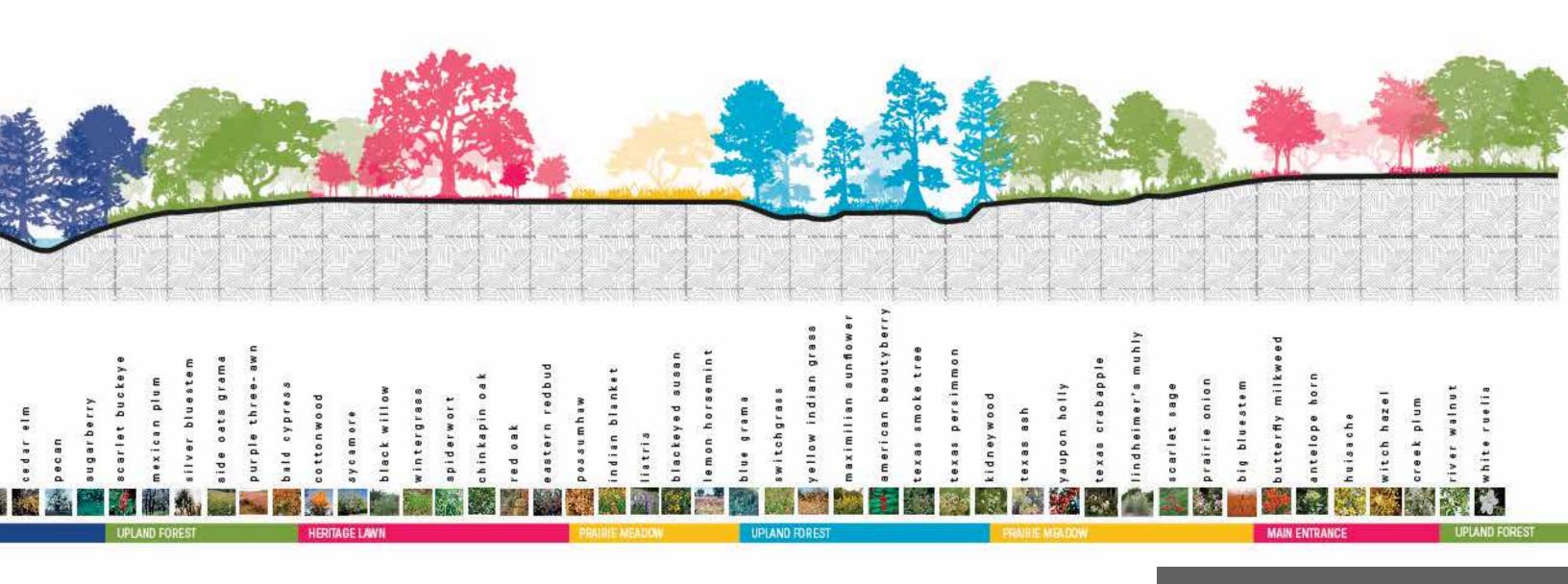
Warm season grasses can be used to treat water run-off and remove pollution. Switchgrass, Yellow Indian Grass and Maximilian Sunflower have the capacity to remove aproximately 11 kilograms of solids for every hectare. The prairies and meadows in Onion Creek Metro Park can remove aproximately 370 kilograms of solids, or almost half a ton.

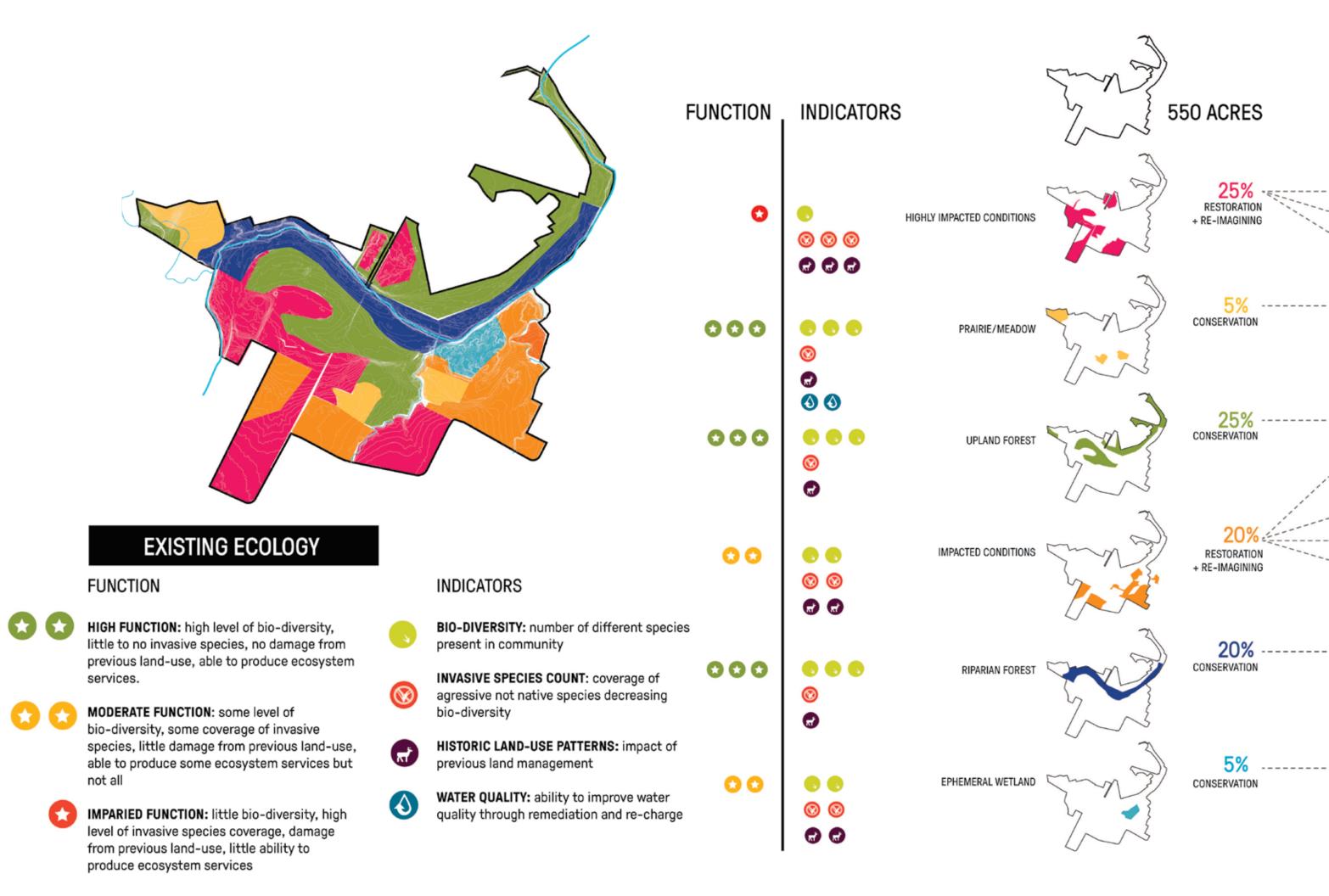


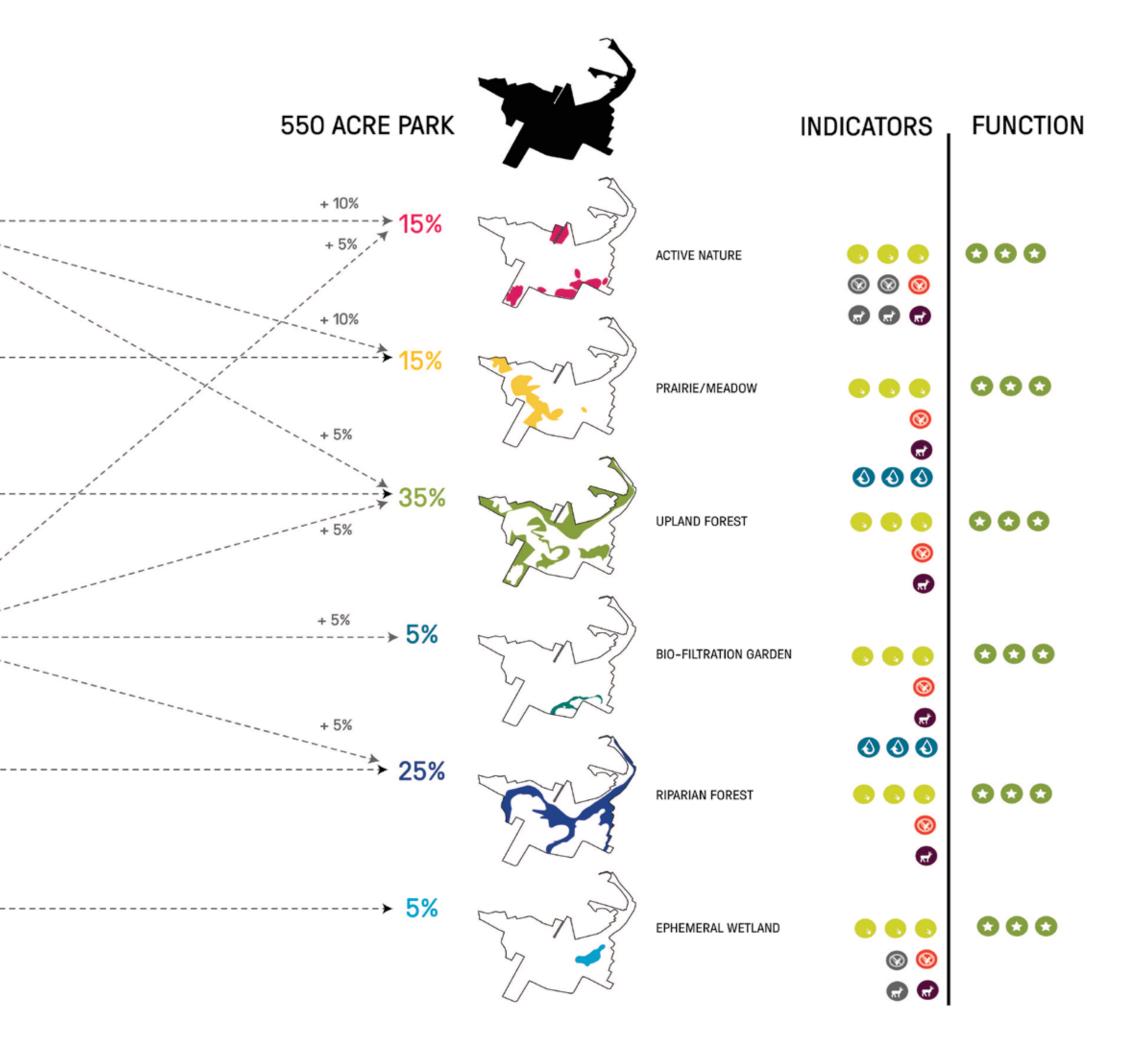
### HABITAT DIVERSITY

The diversity in grasslands provides necessary elements to many species which are considered vulnerable because of habitat loss such as the Monarch Butterfly that needs the native variety of milkweed to survive









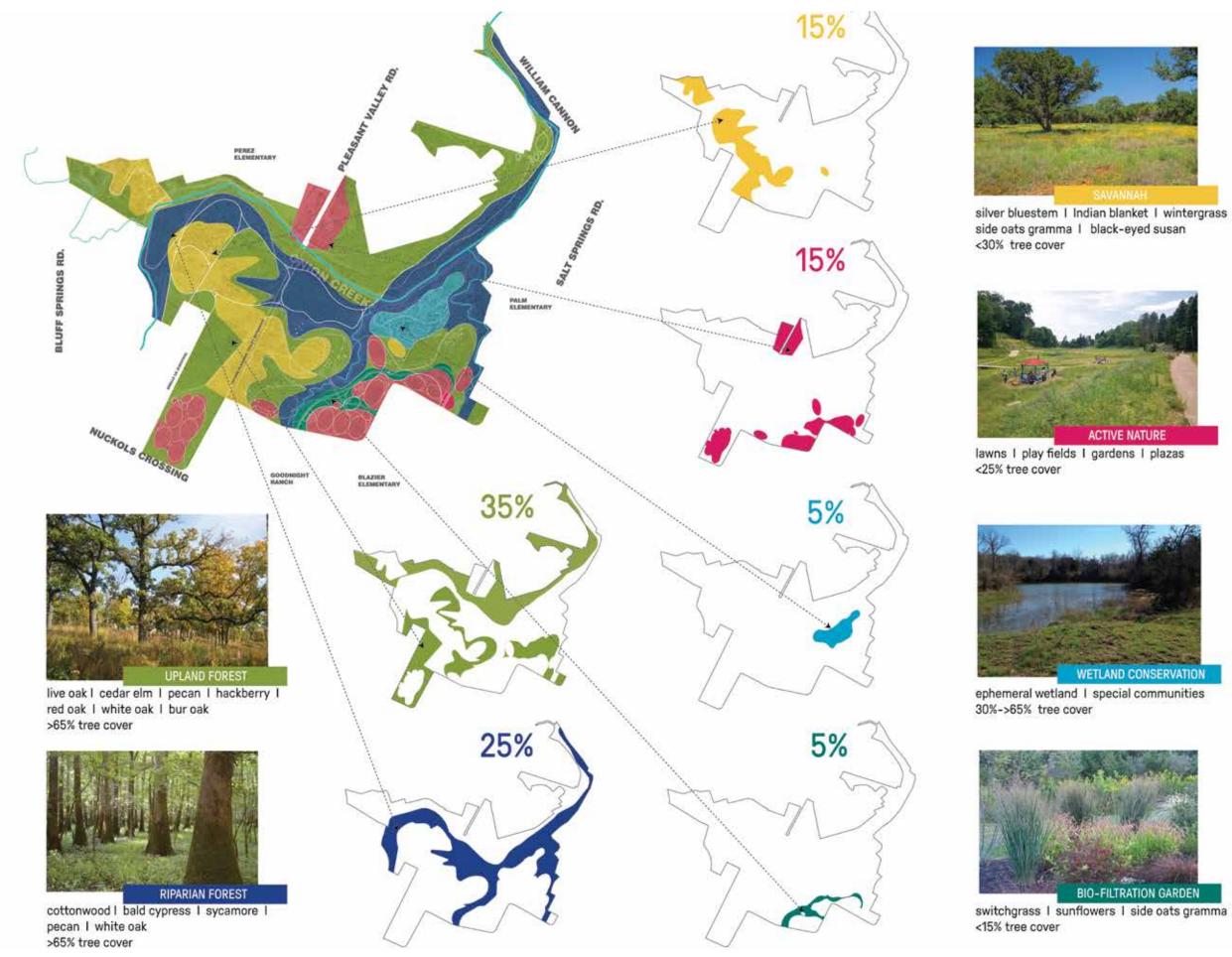
# **METRICS**

Ecosystem Services are a product of healthy relationships in the environment which produce vital resources such as clean air, clean water, habitat and climate regulation.

The interactions that produce these ecosystem services include, nutrient exchange between soil and plant roots, water cleaning through phytoremediation that takes place between water and plant biomass as well as air quality improvements that happen on a celluar level between plants and the atmosphere.

In order for these process to improve function, certain bio-physical conditions must exist. For example, ample vegetation coverage is necessary to not only prevent erosion, but to keep invasive species from colonizing. A primary goal of this Master Plan is to improve the water quality of stormwater re-entering Onion Creek.

The Onion Creek Master Plan improves water quality by restoring the historic prairie savannah communities once present on site. This particular community has the potential to filter aproximately 100,000 gallons of water per acre, over the course of a year. By increasing the coverage of praires and meadows on site, the site's capacity for recharge will increase by approximately 8.25 million additional gallons per year.



**Landscape Ecologies** 

# MATURE HARDWOOD OVER-STORY ERBACIOUS UNDER-STORY PLAYFIELDS + PROGRAM **UPLAND FOREST ACTIVE NATURE** MATURE HARDWOOD OVER-STORY CONSTANTLY REGENERATING SHORT - MID PRAIRIE GRASSES MIDDLE-STORY HERBACIOUS UNDER-STORY WILDFLOWER MIX RIPARIAN FOREST SAVANNAH MATURE HARDWOOD OVER-STORY EPHEMERAL WETLANDS APPEARING WATER CLEANING GRASS + SHRUBS HERBACIOUS UNDER-STORY **BIO-FILTRATION GARDEN** WETLAND CONSERVATION

**Ecology Character Sections** 

### MASTER PLAN ECOLOGY

### **EPHEMERAL WETLAND:**

Area that is periodically full of water and supports unique plant communities such as ferns and other species that can survive in both wet and dry conditions.

#### RIPARIAN:

Area that is found on the banks of a water body with typically moist soils

### **RESTORATION:**

Actively introducing management and maintenance cycles to regenerate natural processes in a landscape that was previously not functioning

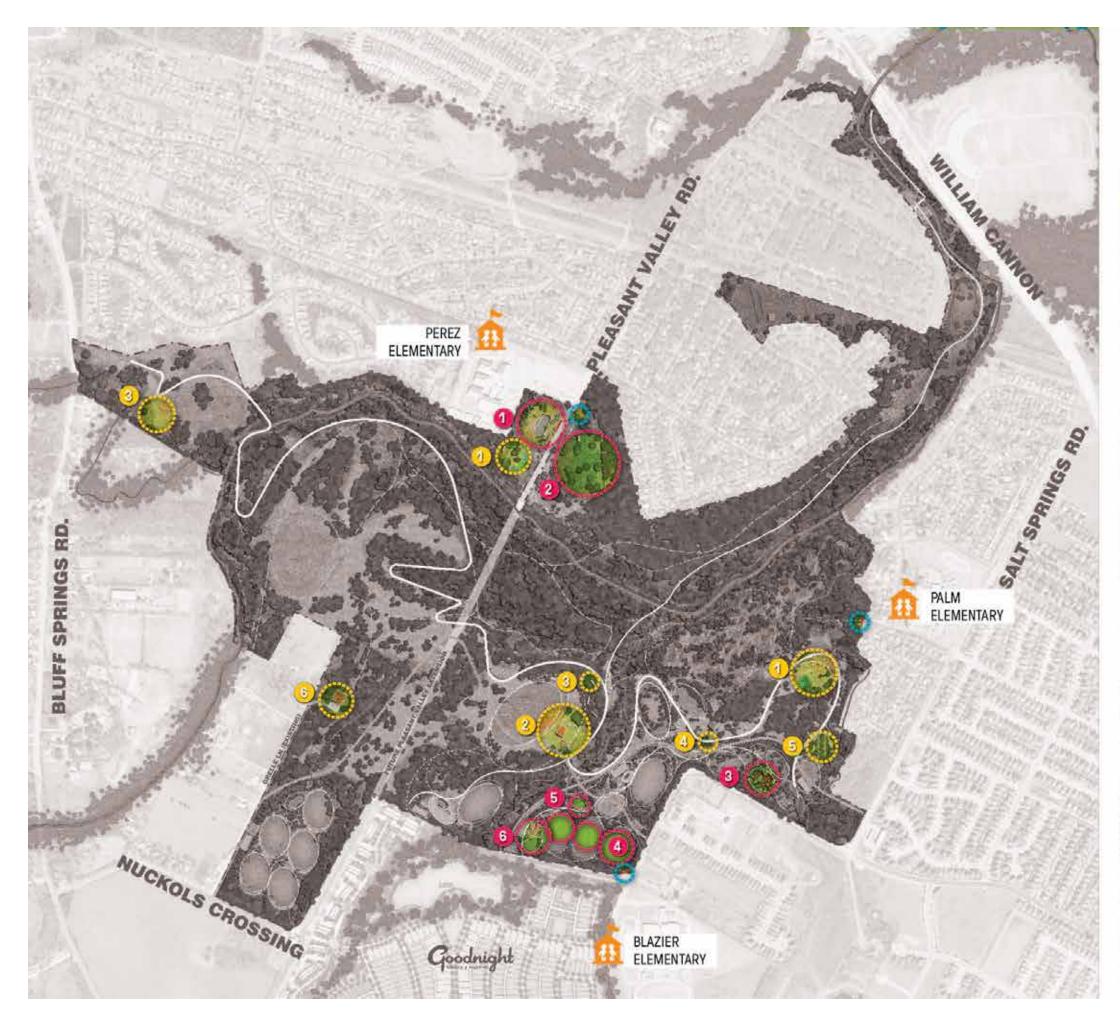
### **CONSERVATION:**

Actively protecting a portion of the landscape that is functioning well without intervention

### **BIO-FILTRATION:**

Removing chemicals, toxins and solids from storm water through plant filtration

ECOLOGY pg 37



# Onion Creek Metropolitan Park Amenities for Local Schools

### CULTURAL/EDUCATIONAL

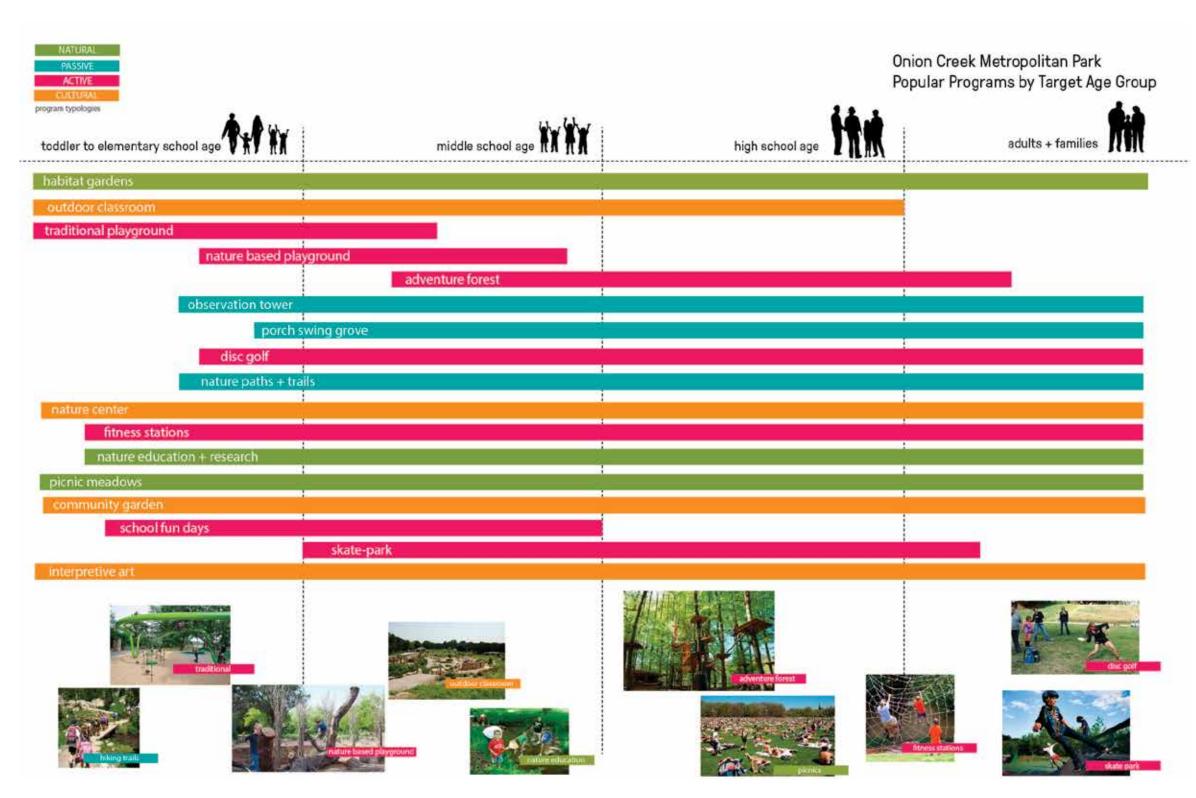
- Outdoor Classroom
- 2 Nature Center with Library
- 3 Interpretive Learning Stations
- Observation Tower
- Community Garden
- Equestrian Center

### ACTIVE/RECREATIONAL

- Skate Park + Parkour
- ② Disc Golf
- Nature Based Playground/ Adventure Forest
- Playfields
- 6 Multi-Age Fitness Stations
- Traditional Playground







### TARGETED USERS

Part of the goal in the Master Plan is to appeal to a wide variety of users. South Austin is a diverse population spanning a variety of age groups and family models.

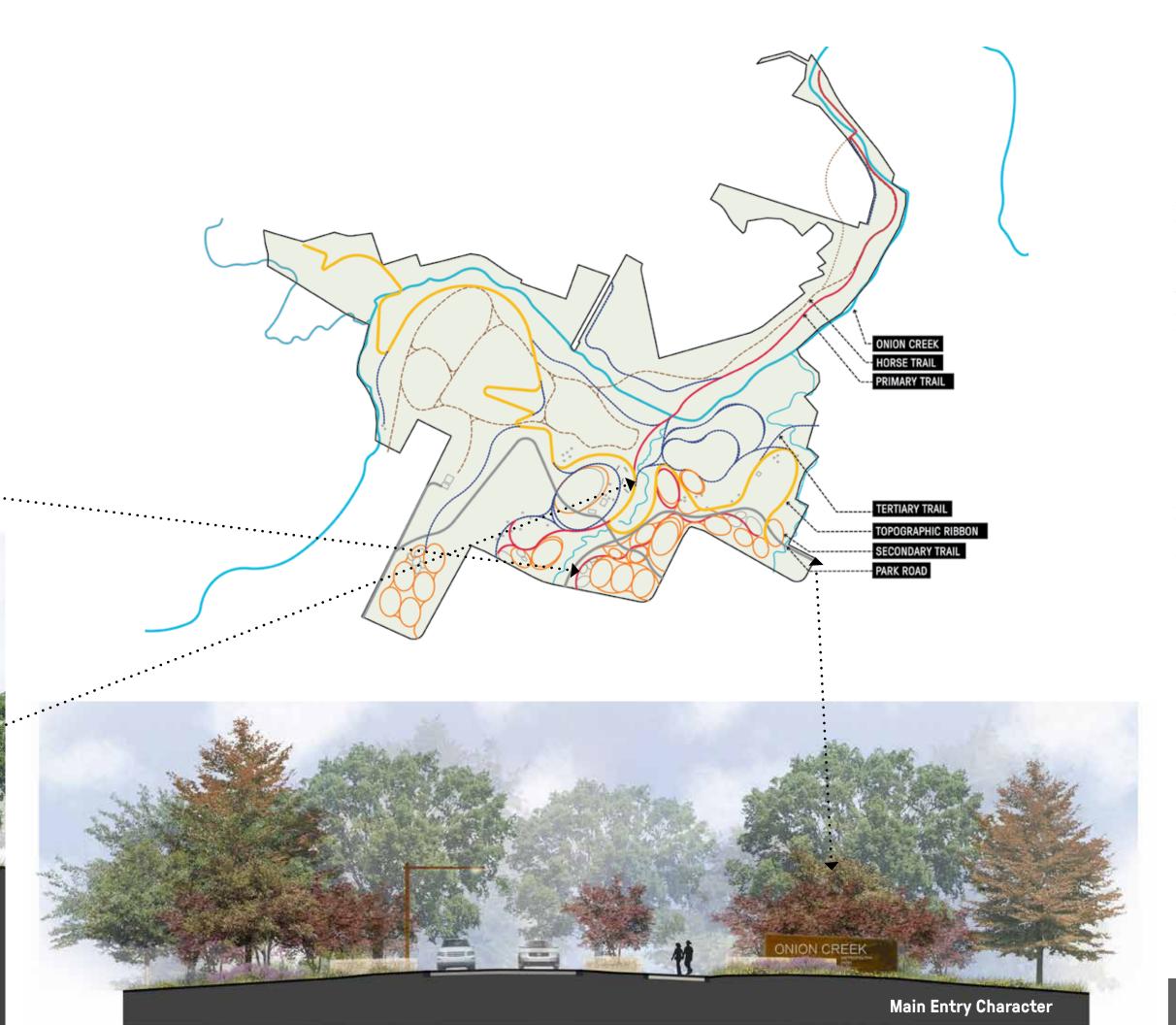
The spectrum of programs in the park allow for users of all ages to enjoy the rich natural setting in a variety of ways regardless of physical ability.

Program such as adventure play can be tailored to multipe age groups by designing structures that increase in complexity as targeted age groups advance.

Play and active recreation is an important component of the park as the Master Plan focuses not only on healthy ecosystems but healthy lifestyles as well. Fitness station and miles of trails work complement the community garden as a marker of health and wellness appreciation in the park.

Public engagement played an important role in sorting out the mix by giving voice to the wide slice of the community that is actively engaged in the planning of Onion Creek Metro Park. The audience ranged from neighbors to the park within walking distance to users from the larger Austin metroplex. This park negotiates its identity between being a community/neighborhood park and being a regional park for the larger area.



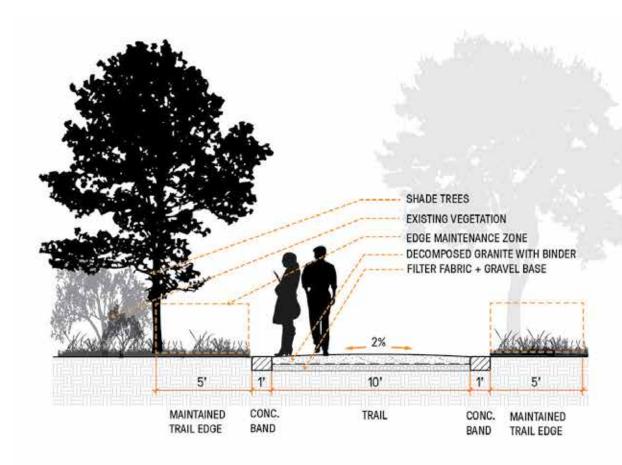


### CIRCULATION

Park circulation has been planned to meet a variety of functional needs and user abilities throughout the extents of the park. Alignments follow existing topographic to minimize grading impacts, preserve highly valued vegetation, and effectively manage stormwater.

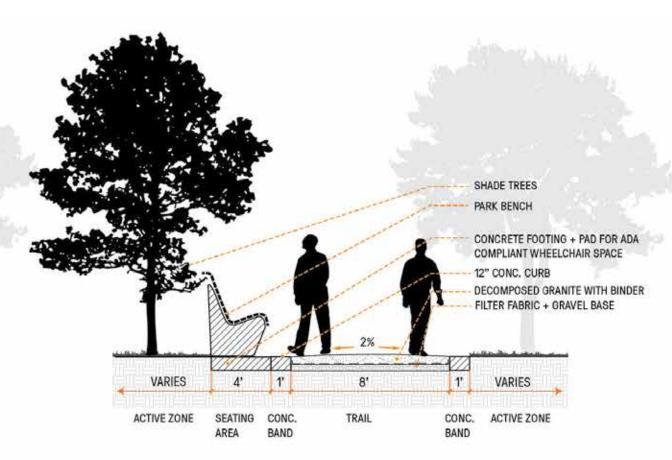
The site's primary vehicular circulation route occurs to the south of the site close to Nuckols Crossing and Vertex. The park road links more highly programmed uses from east to west. Major entries are planned to occur off Salt Springs Road and Nuckols Crossing while long term planning includes a third major entry off an improved Grelle Lane. The park road will link intermittent parking lots, afford some parallel parking opportunities, and accommodate maintenance operations for the more active areas.

A system of multi-use trails will lightly thread through the park. The primary pedestrian circulation route will be the Topographic Ribbon which moves users through a series and natural and active spaces along an east/west transect. North/south circulation will occur along a primary trail that will link the southern community space, existing Onion Creek Greenbelt, and northern reaches of the site along William Cannon. Both the Topographic Ribbon and Primary Trail will be wide decomposed granite paths with concrete bands. Separate earthen horse trails will originate at existing and newly proposed equestrian facilities to the west and run parallel to the north/south primary trail allowing horse riding to extend beyond the park boundaries. Current plans accommodate an undercrossing at William Cannon to facilitate desired riding connections further downstream. A series of soft surface nature trails are planned primarily along existing trails and will afford an immersive experience within the more isolated natural areas of the park.



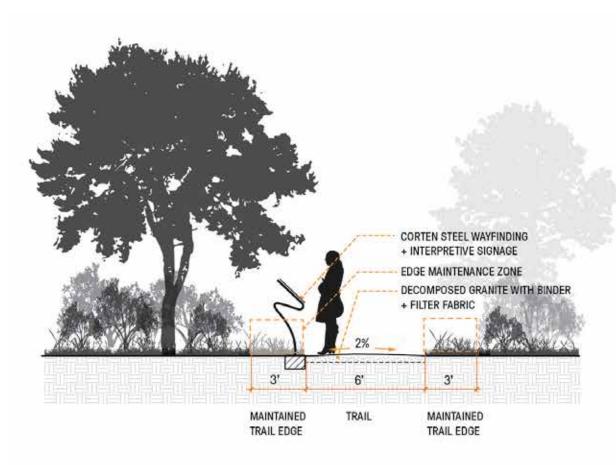
TOPOGRAPHIC RIBBON TRAIL, TYP. 1/2" =1'-0"





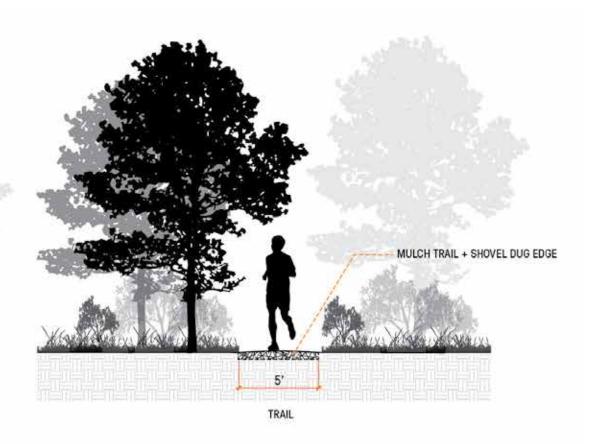
PRIMARY CIRCULATION, TYP. WITH BENCH 1/2" =1'-0"



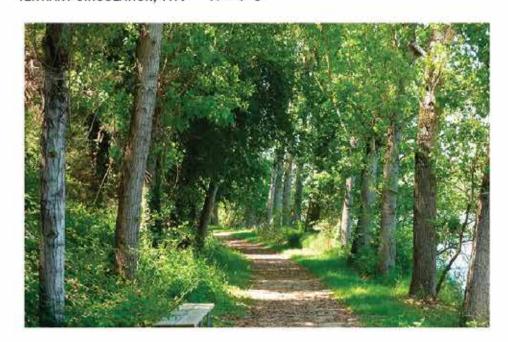


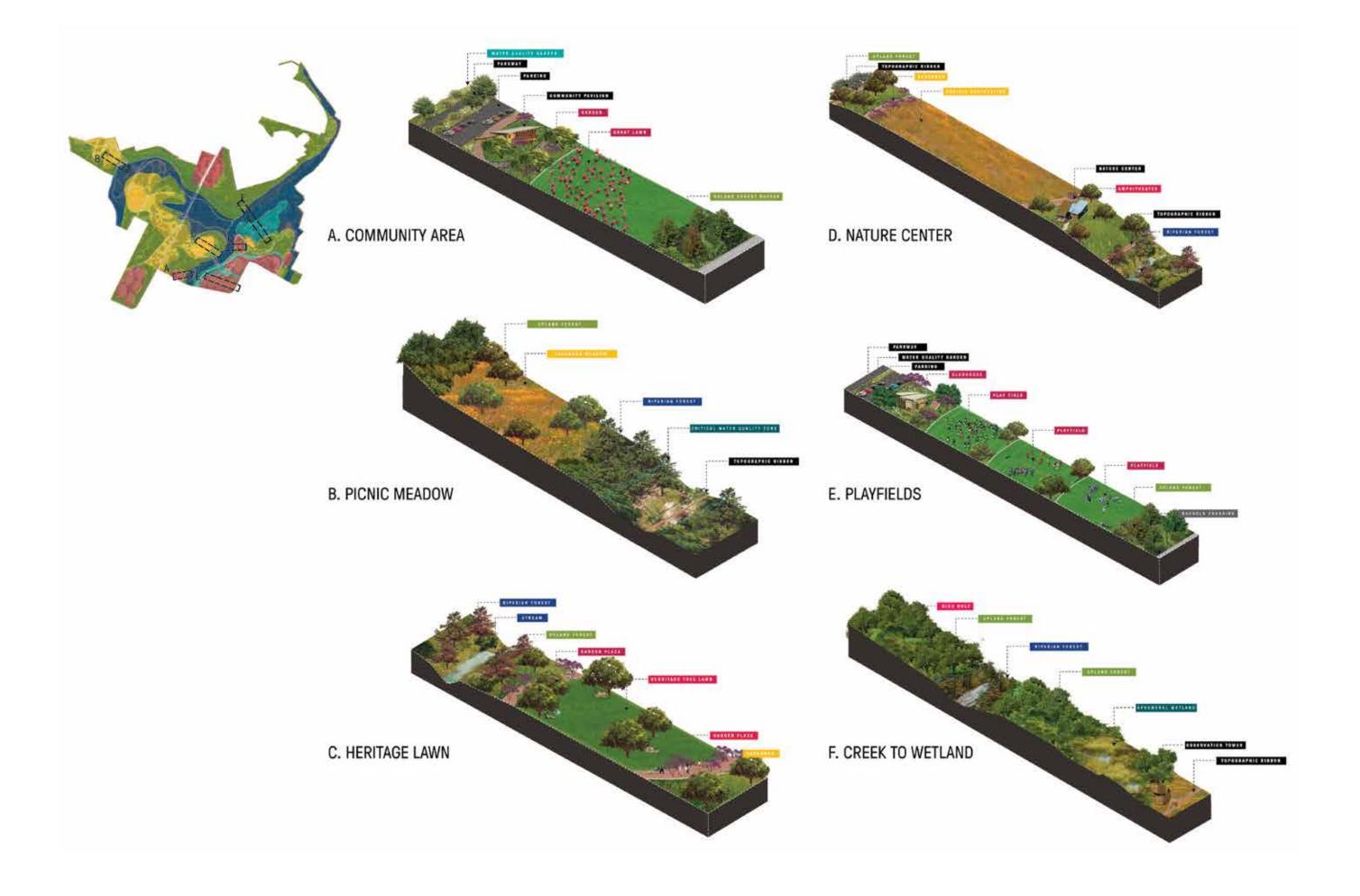
SECONDARY CIRCULATION, TYP. WITH SIGNAGE 1/4" =1'-0"





TERTIARY CIRCULATION, TYP. 12"-0"





### ENLARGEMENTS + CHARACTER



In the design of the Master Plan, certain areas developed as key programatic nodes with unique characters. To the west portion of the site off of Bluff Springs Rd., the opportunity to enhance a well established wildflower display revealed itself as the ideal place to picnic in nature.

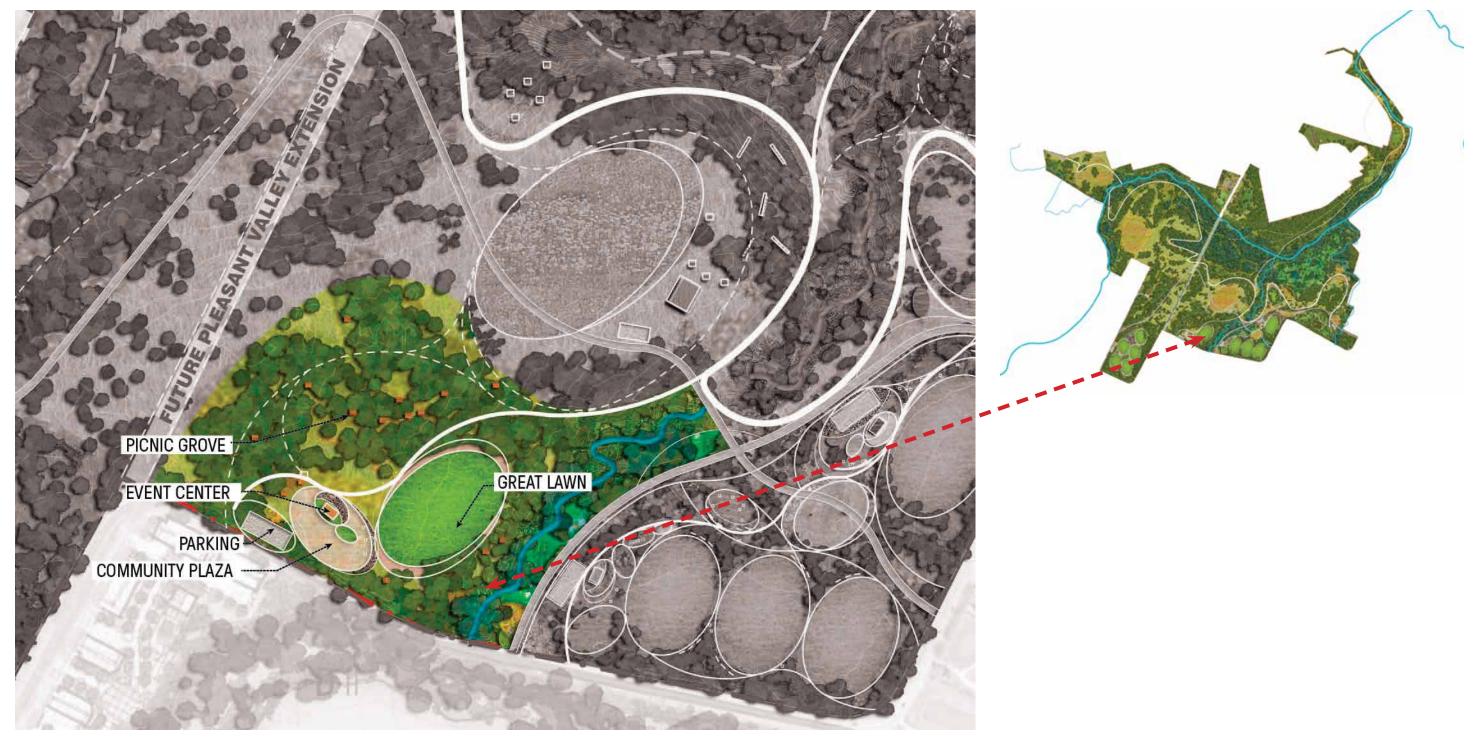
At the center of the park, an exisiting savannah in a toopographic bowl bounded by both upland and riparian forest created the ideal nexus for a nature center focused on education.

Just to the east of the nature center is another pocket protected by ridgelines overlooking a creek tributary and the ephemeral wetlands, a focus point of the site's natural heritage.

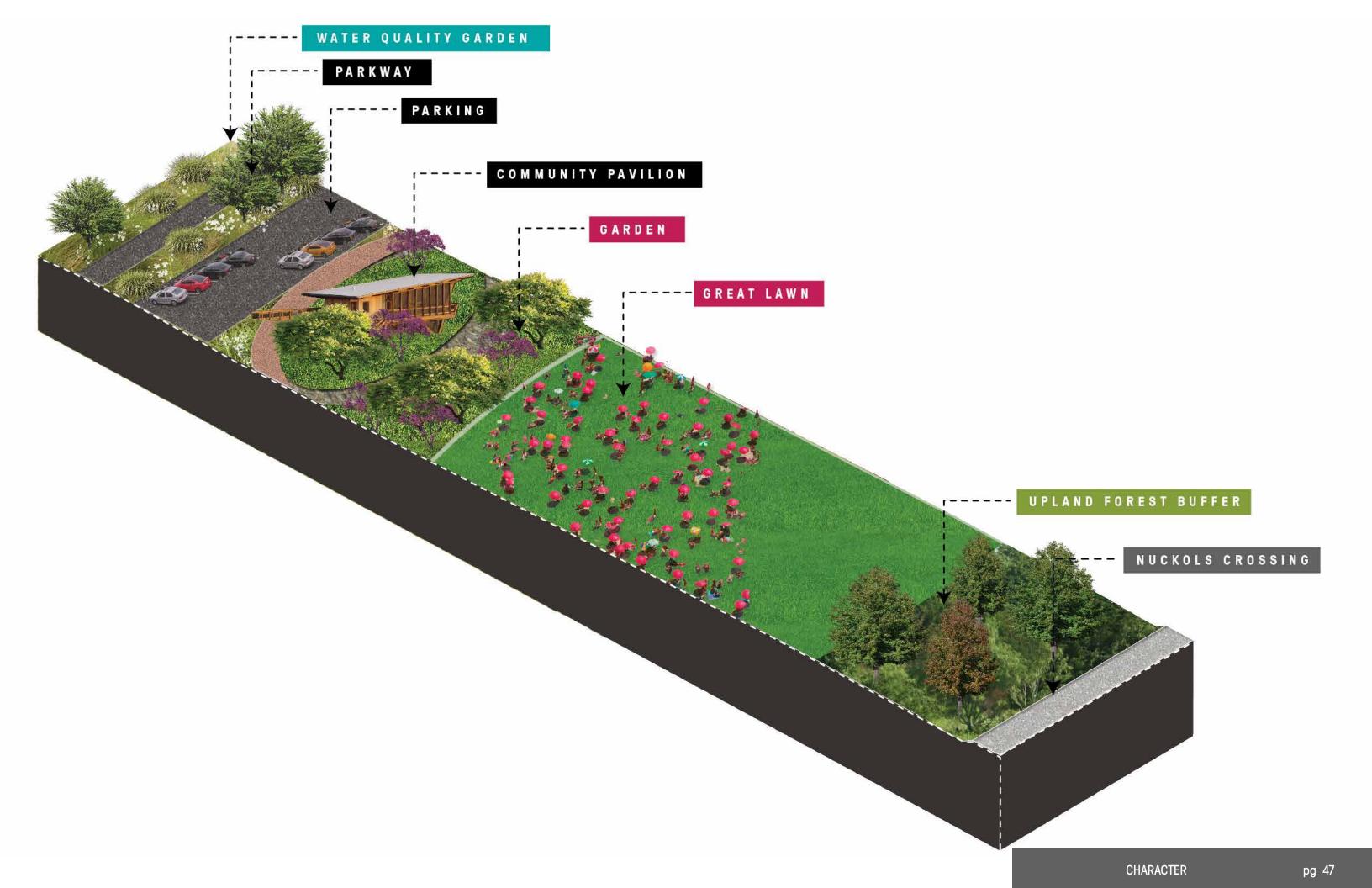
Adjacent to the natural heritage point is the heart of the park where a grand lawn is ringed by botanic gardens and a bio-swale garden. This spot is meant to be a passive and relaxing social space.

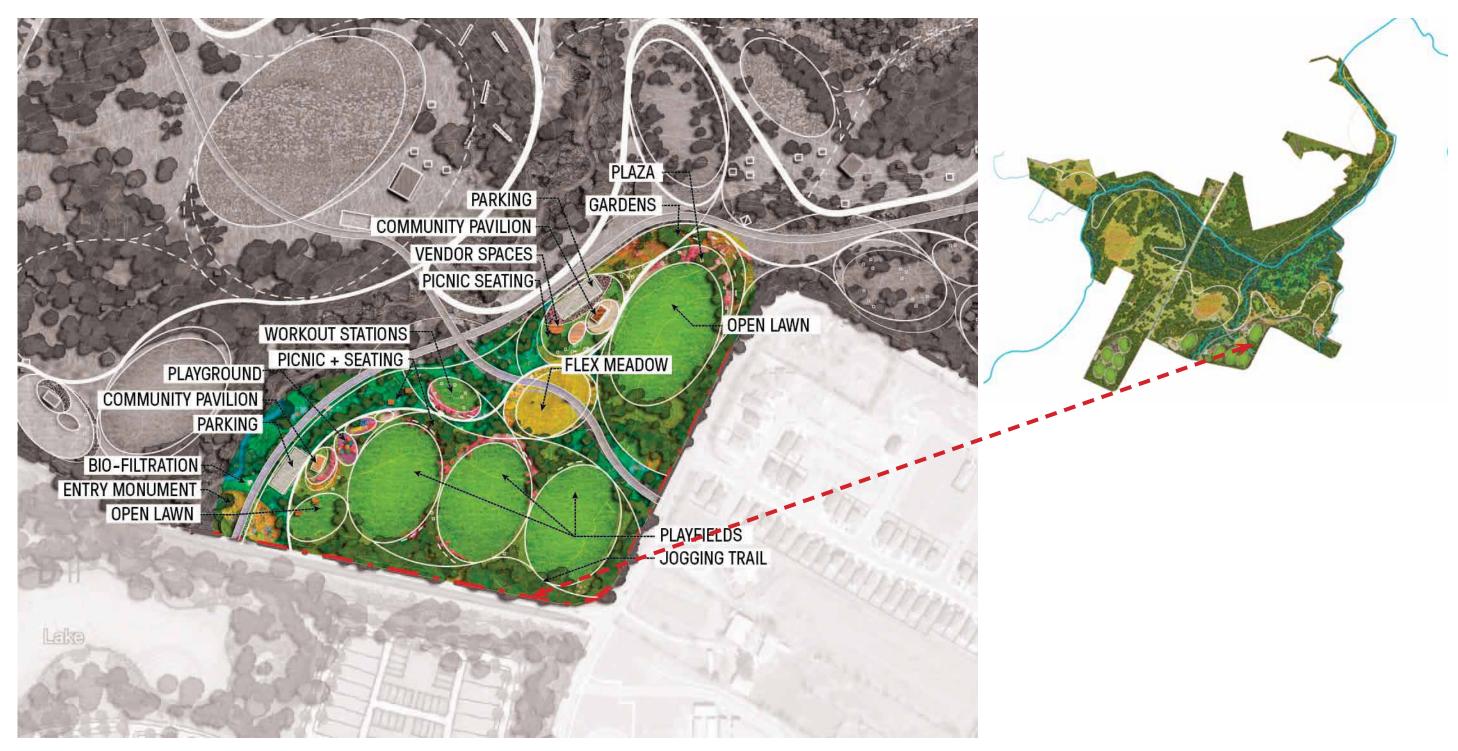
The part of the site closest to Blazer Elementary presented itself as the ideal spot for family play and open fields for sports or exercise. Part of the reason it is so ideal is that the area is relatively easy to access from existing and planned neighborhoods without disturbing more sensitive ecological communities.

CHARACTER pg 45

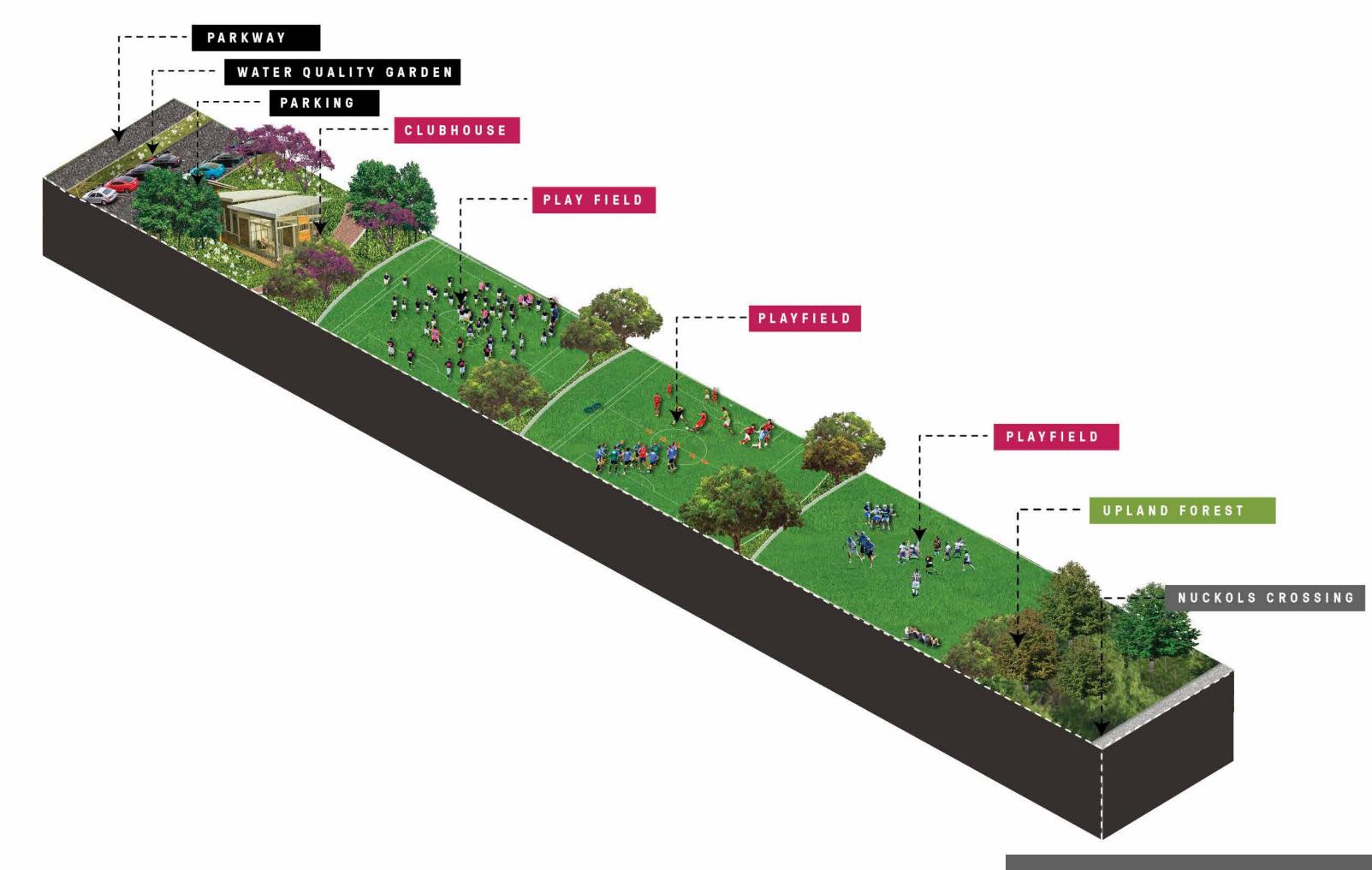


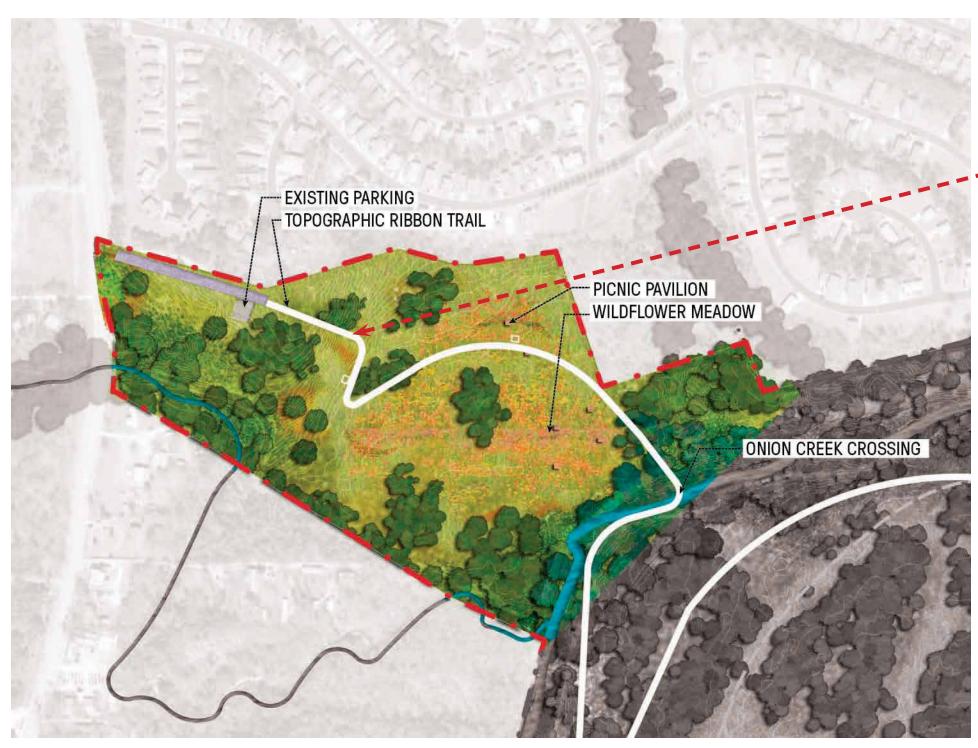
Community Area at Nuckols Crossing

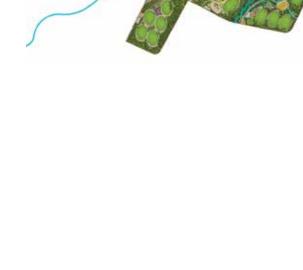




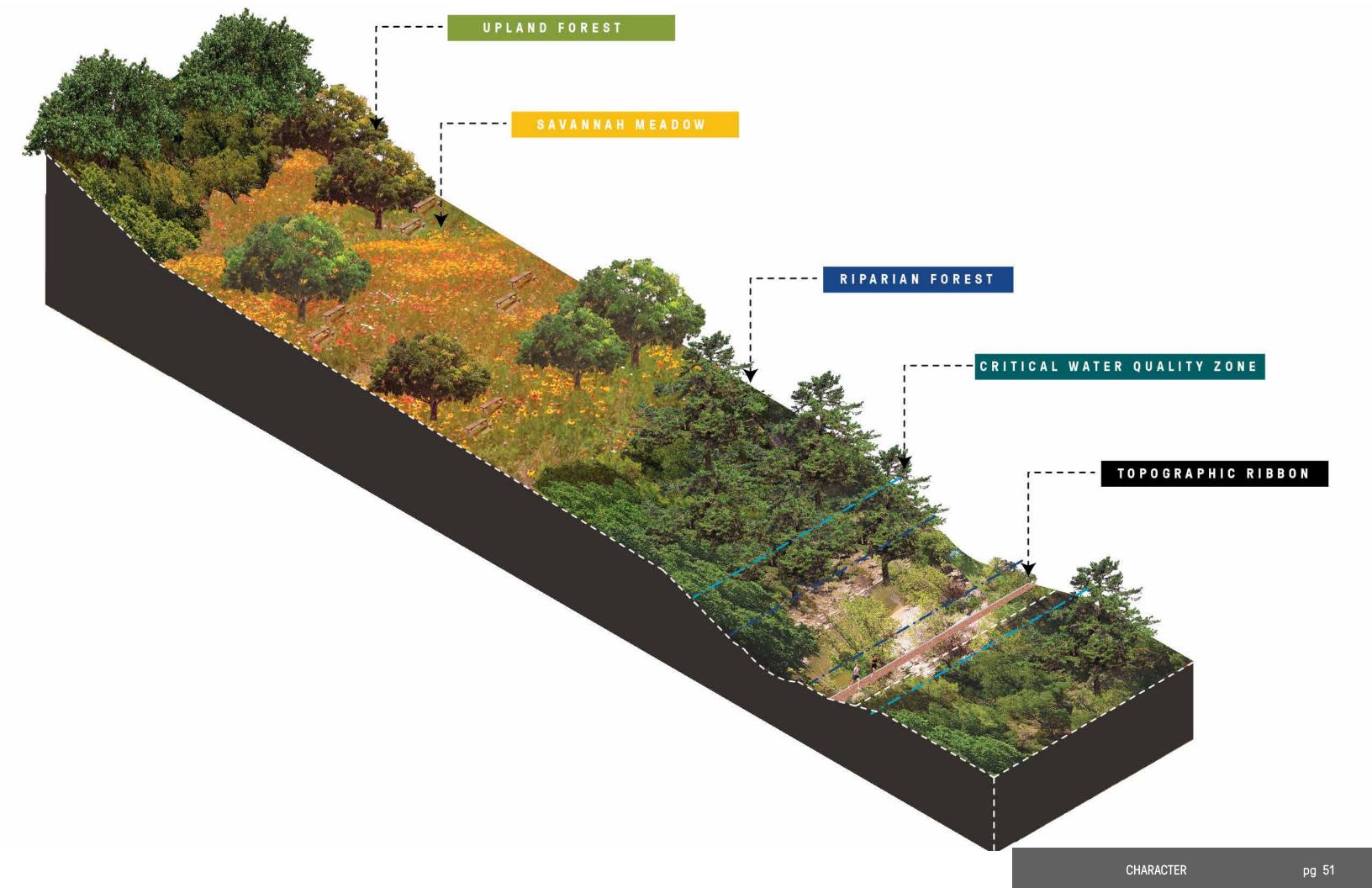
Playfields and Family Play at Vertex and Nuckols Crossing





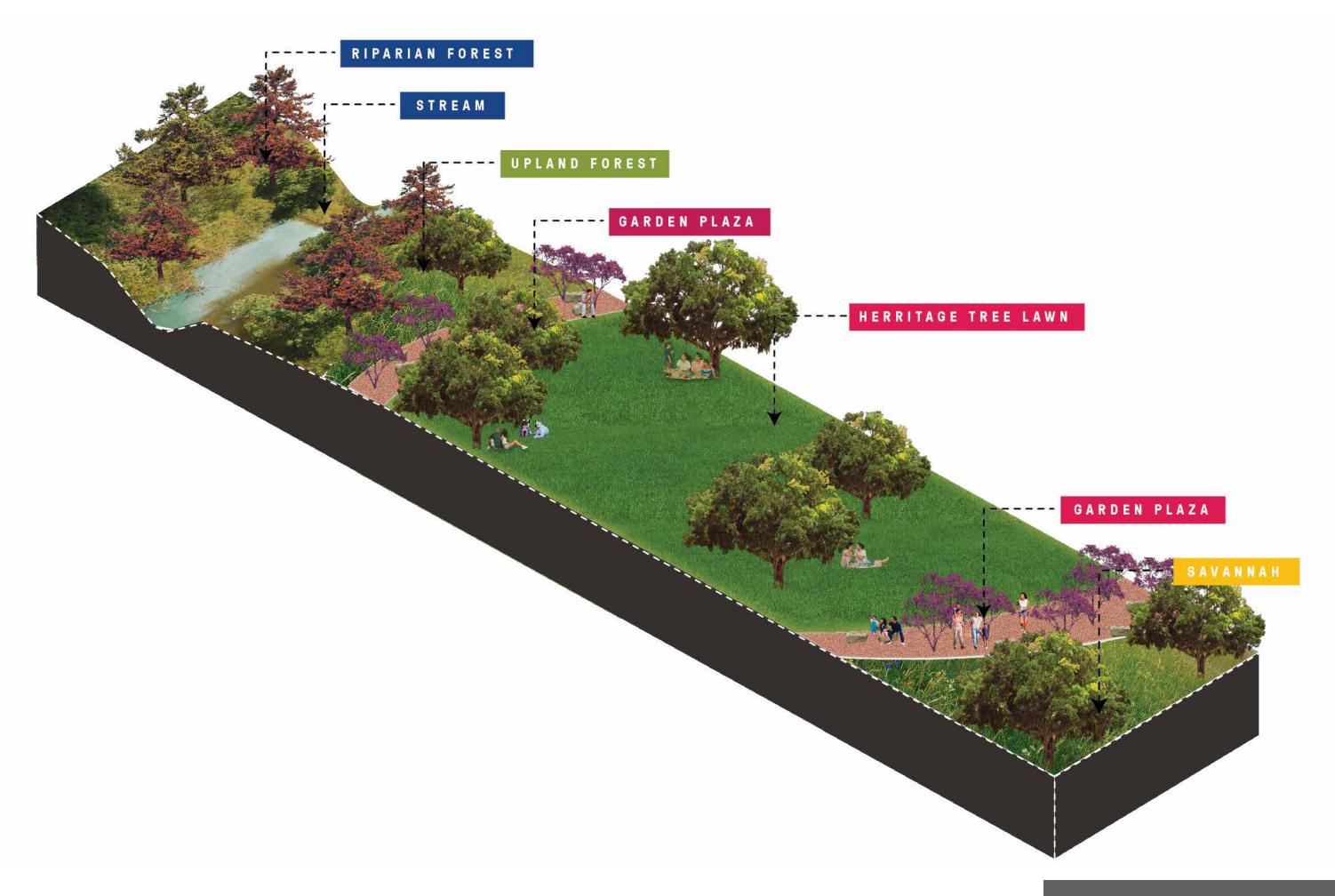


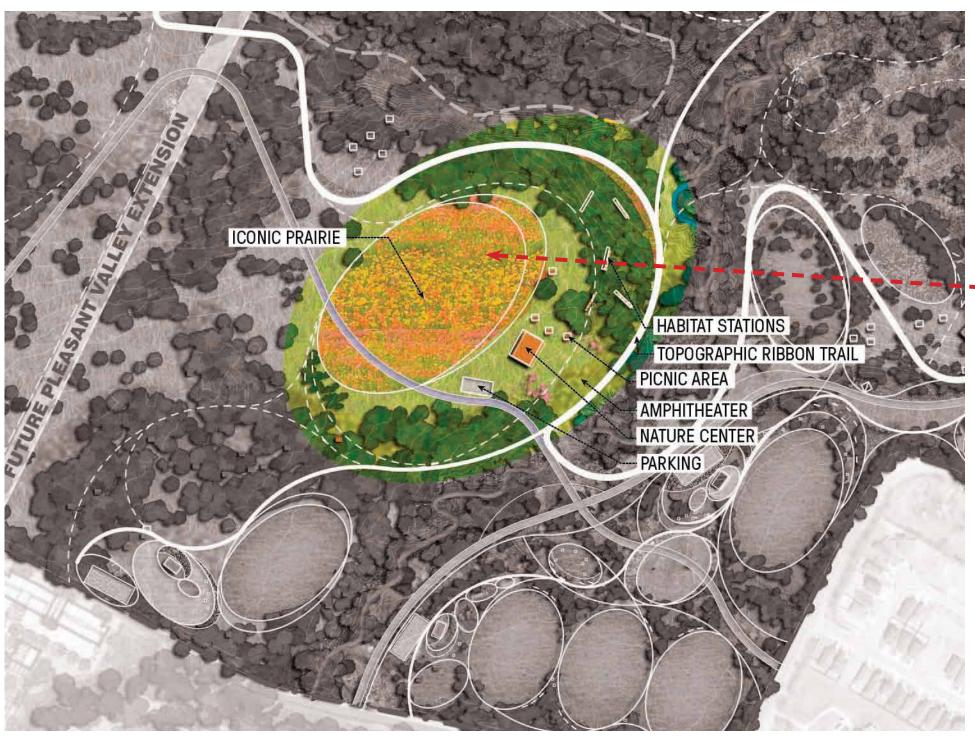
West Picnic Meadow at Bluff Springs

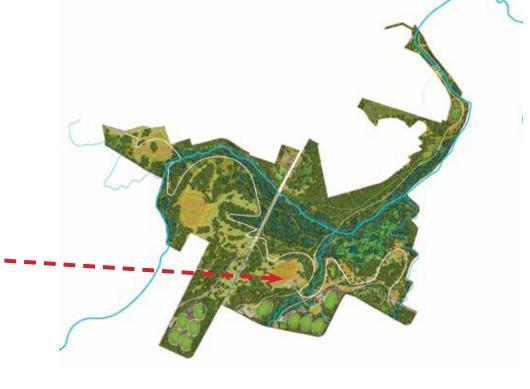




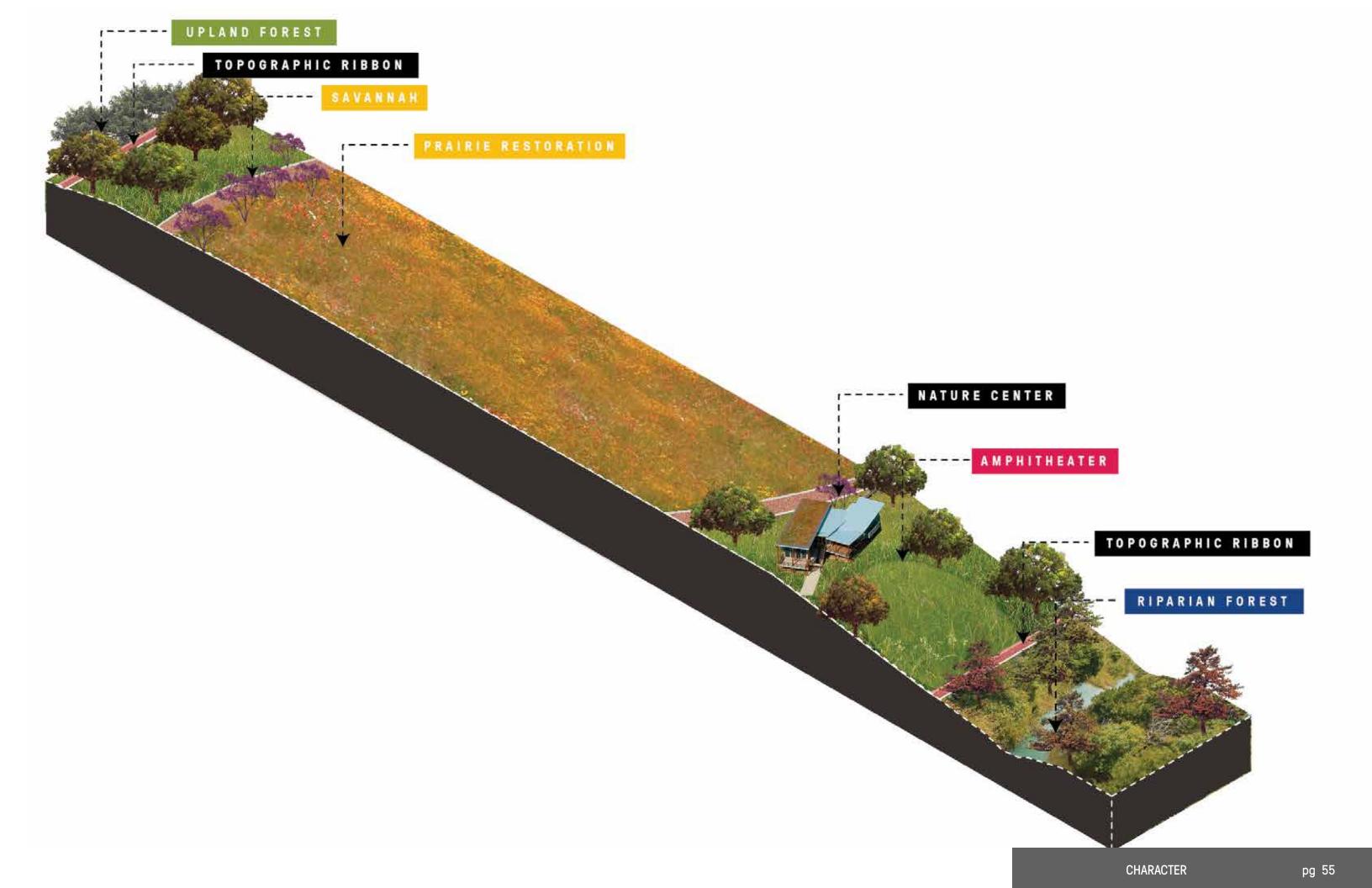


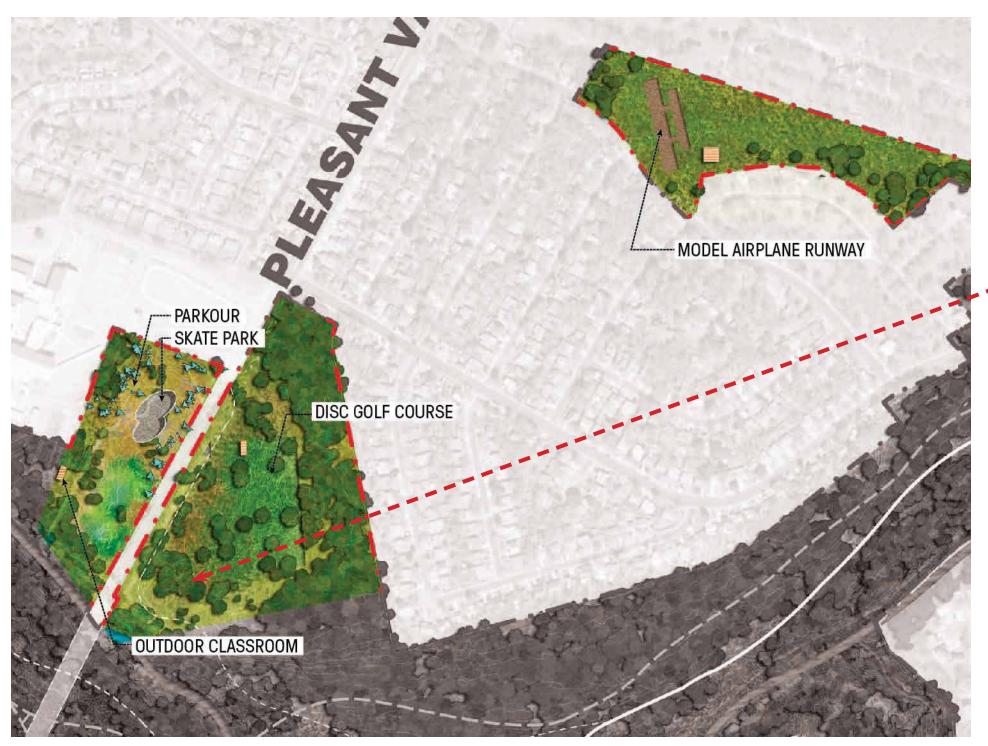




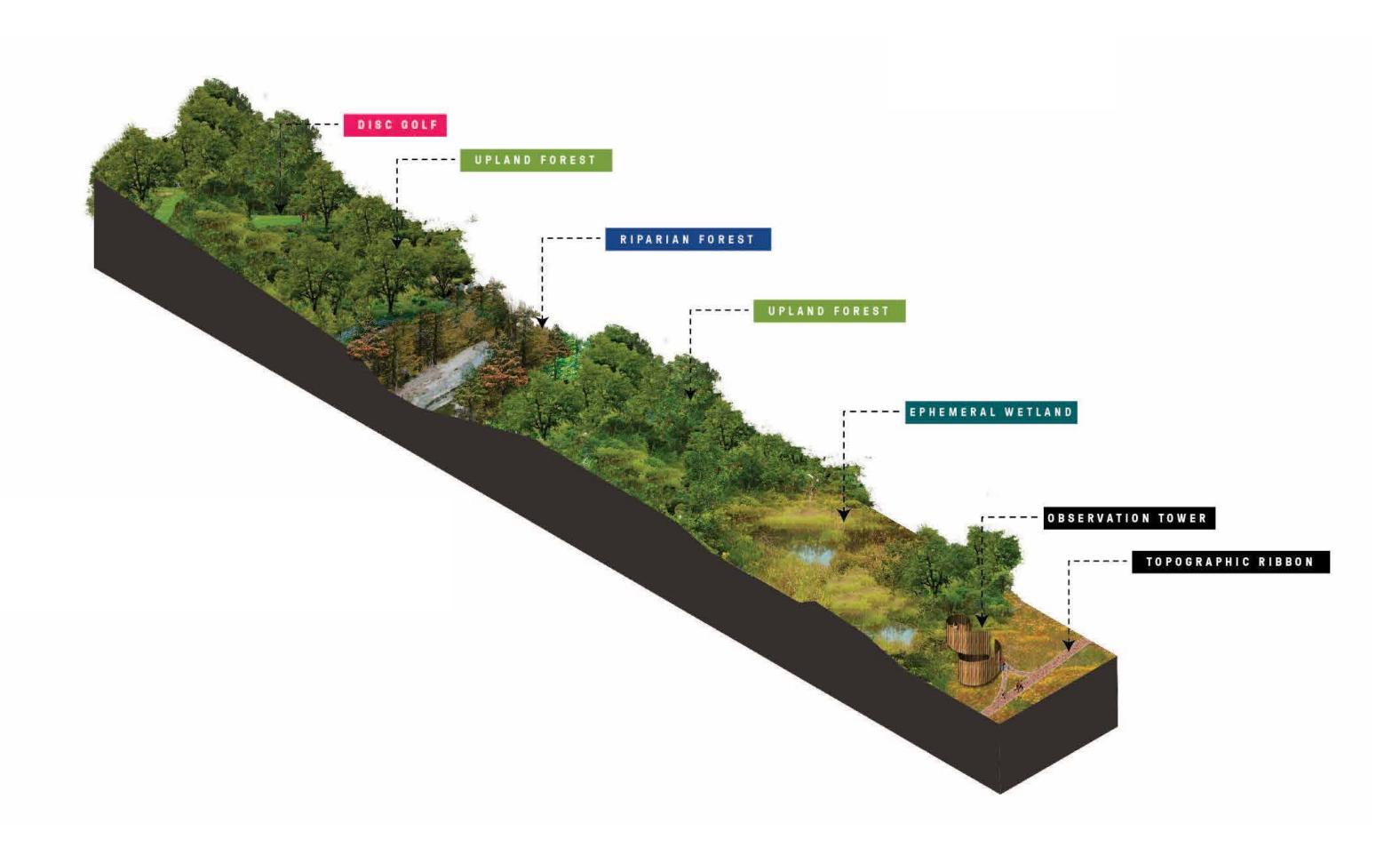


Nature Center













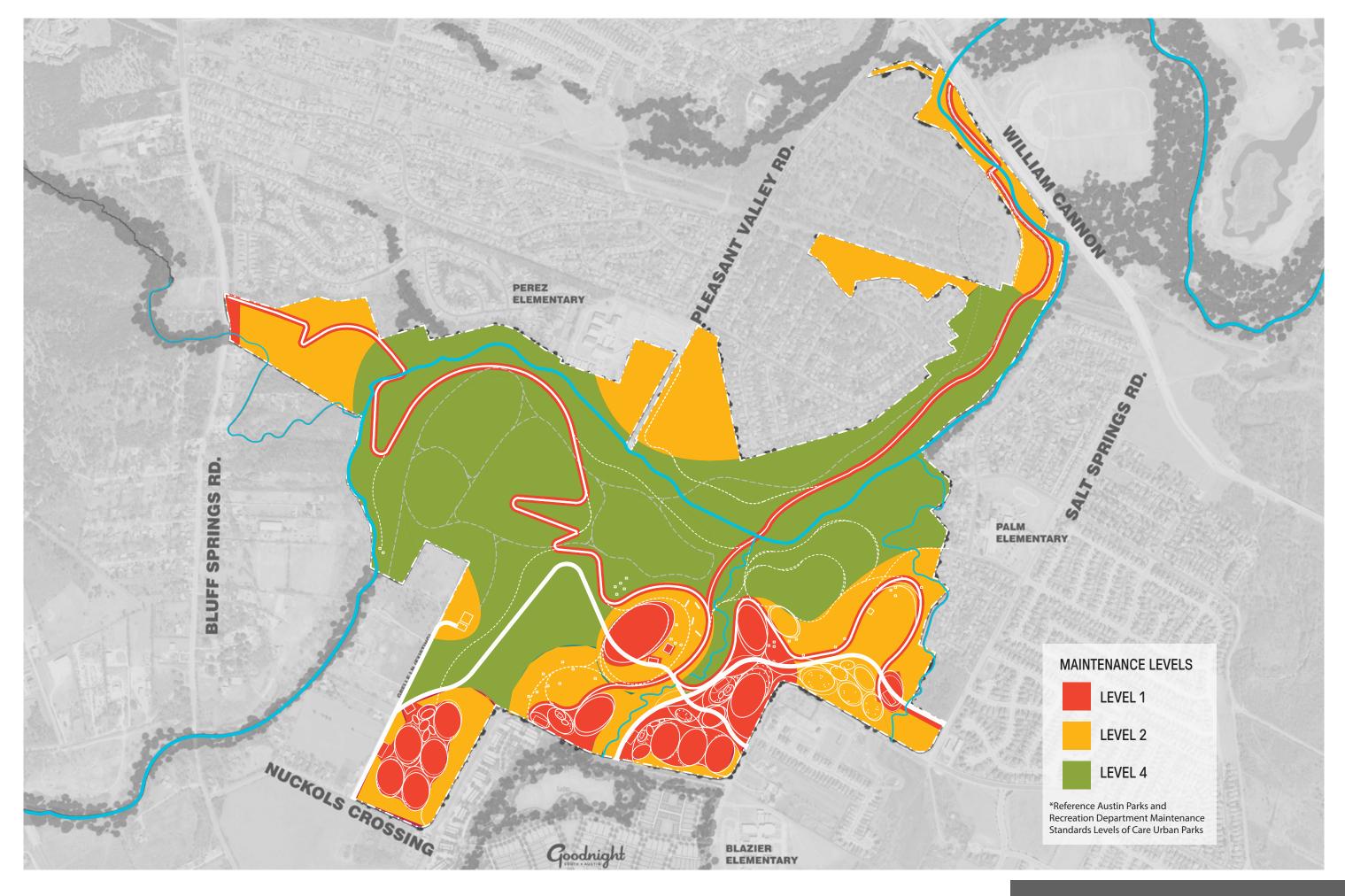
# INITIAL IMPROVEMENTS

Originally purchased by the City of Austin in 2000 with 1998 Parkland Acquisition Bonds, the Onion Creek Metro Park is 555-acres of parkland with 180 acres being part of the Onion Creek Greenbelt. During the 83rd Legislative Session, the Texas Legislature created a Municipal Management District to provide ongoing funding for the Onion Creek Metro Park District through fees charged to homeowners in the adjacent Goodnight Ranch community.

In 2014, Austin City Council approved a Consent Agreement between the City of Austin, the Onion Creek Metro Park District and the Austin Goodnight Ranch L.P.

The next steps of the Onion Creek Master Plan include Phase I Park Development of the engineering and permit drawings, submittal of the Phase I Site Plan, contracting and bidding, and completion of construction of Phase I by 2017 per the Consent Agreement.

The initial improvements will include 30 acres of irrigated landscape and 20 acres of un-irrigated cleared landscape as well as site access and 50 parking spaces.





## LEVEL 1 MAINTENANCE



LEVEL 2 MAINTENANCE



LEVEL 4 MAINTENANCE

### WEEKLY TURF CARE IRRIGATION INSPECTION DAILY PLAYGROUND + AMENITIES INSPECTION DAILY RESTROOM CLEANING DAILY TRASH REMOVAL WEEKLY RAKING WEEKLY PRUNING

BI-WEEKLY TURF CARE IRRIGATION INSPECTION DAILY PLAYGROUND + AMENITIES INSPECTION DAILY RESTROOM CLEANING DAILY TRASH REMOVAL BI-WEEKLY RAKING **BI-WEEKLY PRUNING** 

MONTHLY TRASH INSPECTION MONTHLY WEED CONTROL MONTHLY PARK ELEMENT INSPECTION

### MANAGEMENT STRATEGIES

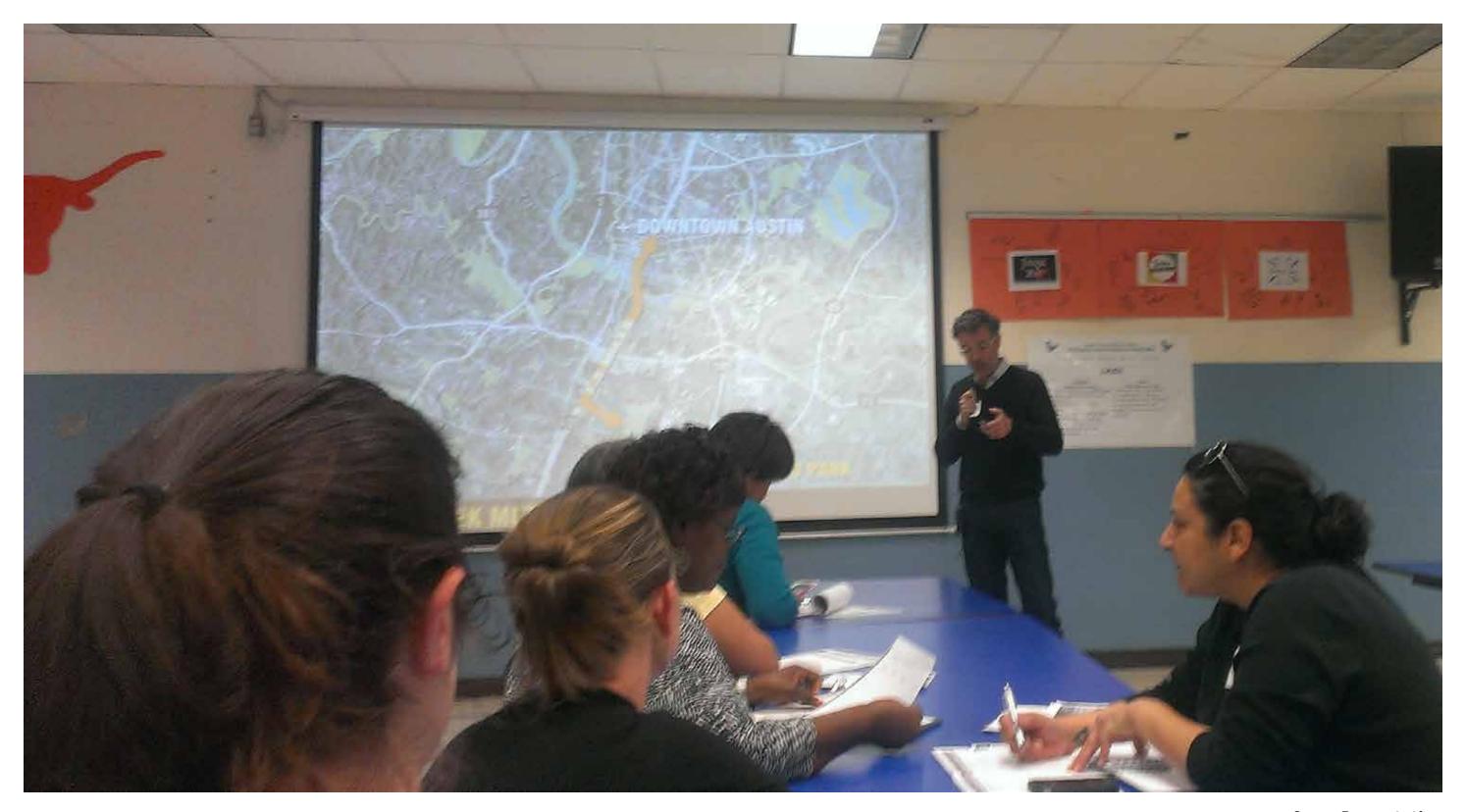
The proposed management strategies reference the City of Austin's Parks and Recreation Department Maintenance Standards and Levels of Care Document.

The logic behind the strategies concentrates the most intense Level 1 efforts in the areas with active and cultural programs that could potentially experience periods of high traffic.

Level 2 efforts are focused in areas not designed for large gatherings or events but still anticipated high use numbers, particularly in terms of trails and shelters.

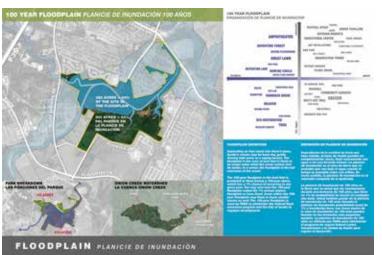
Since a large portion of the park is devoted to nature conservation and enhancement, these areas should be maintained and managed in a matter that allows the restored ecological system to become self-regulating. Periodic maintenance in the form of pest management and invasive species control will be the most critical. Level 4 maintenance is proposed in these areas.

# PUBLIC ENGAGEMENT PROCESS

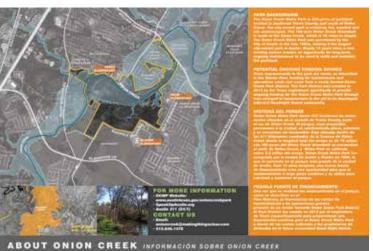


**Group Presentation** 



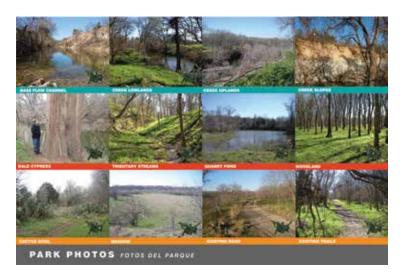




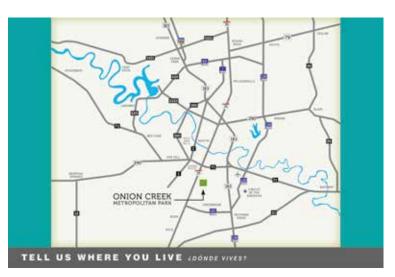












**Meeting Boards** 

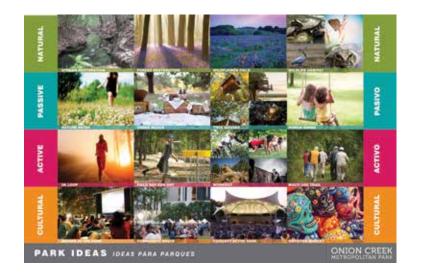
Public Meeting #1: Visioning Workshop, Mar. 2014

The goal of this workshop was to introduce the project design team, outline the upcoming master planning process, discuss potential park opportunities and constraints, present similar park case studies, and solicit public feedback.

A group presentation and project display boards were used to display background information and meeting participants were provided access to paper and digital surveys that were compiled post meeting.



**Group Presentation** 









ONION CREEK
METROPOLITAN PARK

ONION CREEK
METROPOLITAN PARK

ONION CREEK
METROPOLITAN PARK

AUTHOROGUE VIVES?

ONION CREEK
METROPOLITAN PARK

MET

**Meeting Boards** 

Public Meeting #2 Opportunities and Constraints, Sept. 2014

The project team presented initial public survey feedback, discussed site analysis, showed zoning diagrams for potential park programming, and solicited public feedback.

A presentation and project display boards were used to display background information. Meeting participants were provided access to paper and digital surveys that included content from the previous survey as well as additional questions generated from previous public comments.

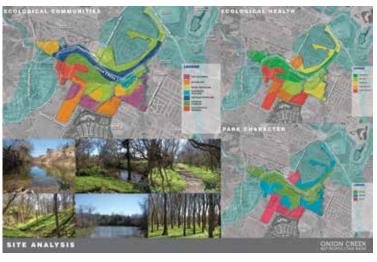


Break-out Groups









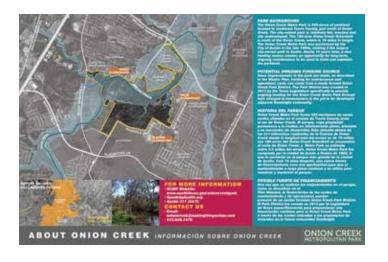
**Meeting Boards** 

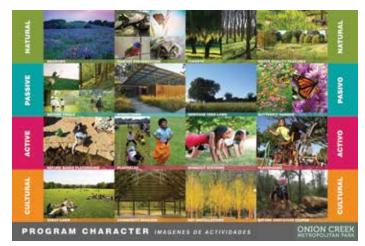
Public Meeting #3 Scenarios Workshop, Dec. 2014

The project team discussed the results of the previous meeting and surveys and then engaged workshop participants in group discussions at three stations engaging directly with the principal design team.

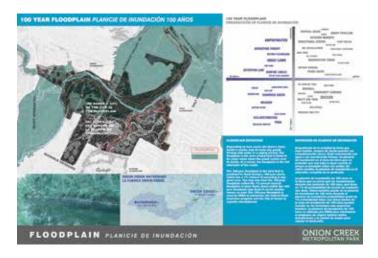
Each station included an interactive Framework Plan serving as the basis for discussion. Community outreach assistants facilitated conversations and recorded all comments.



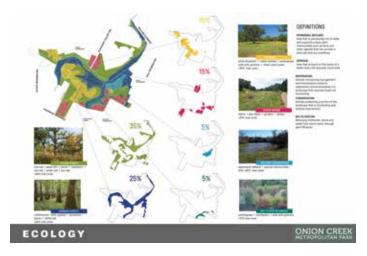




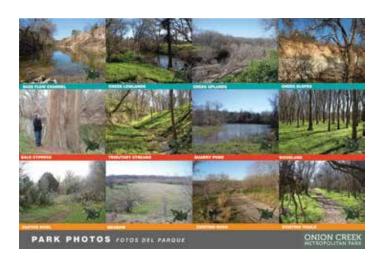


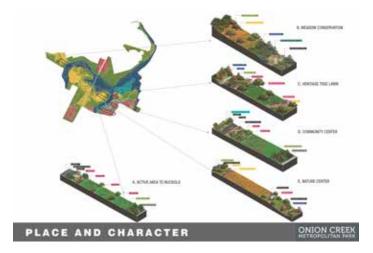










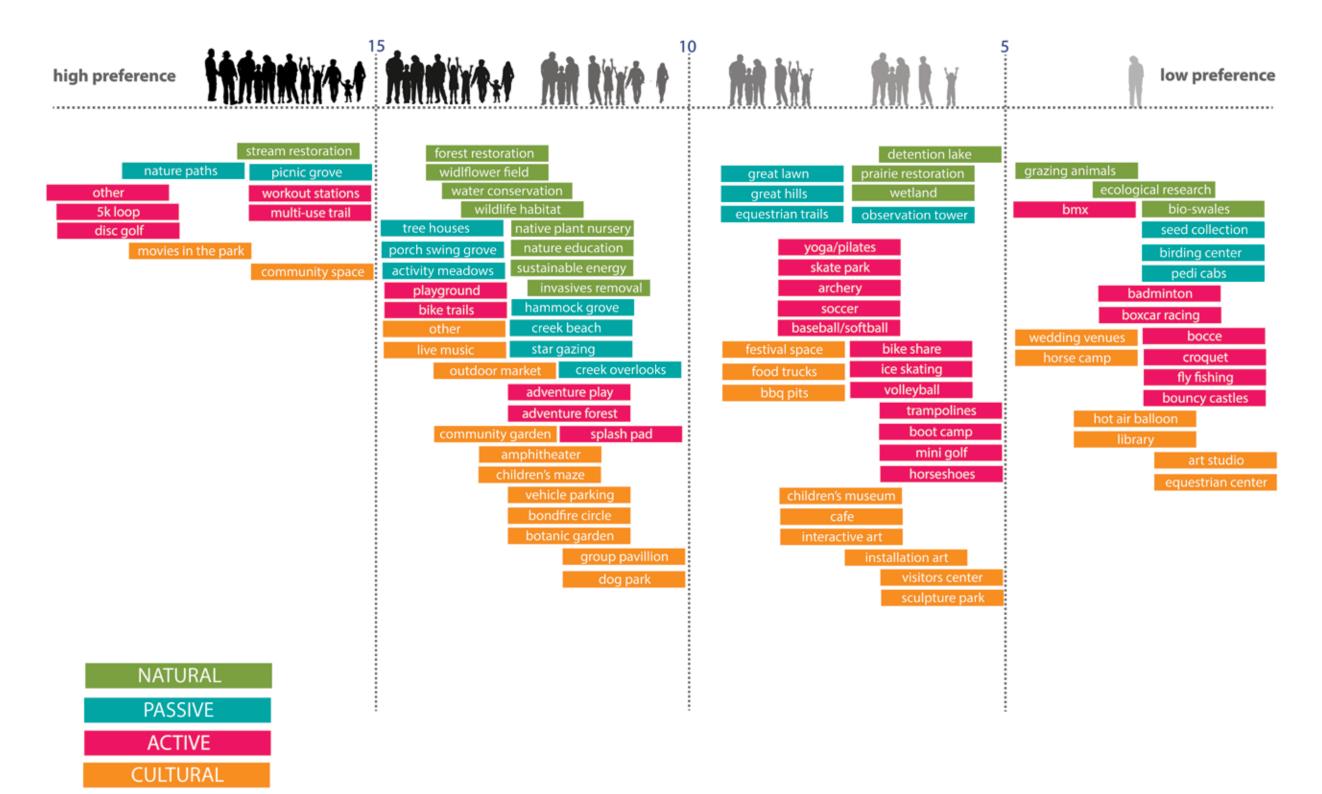


**Meeting Boards** 

Public Meeting #4
Final Draft Master Plan, May 2015

The project team summarized the planning process, feedback received from previous meetings, and presented plans, perspectives, and diagrams illustrating the Draft Master Plan. Comments from participants were recorded by project team members and next steps towards implementation were outlined

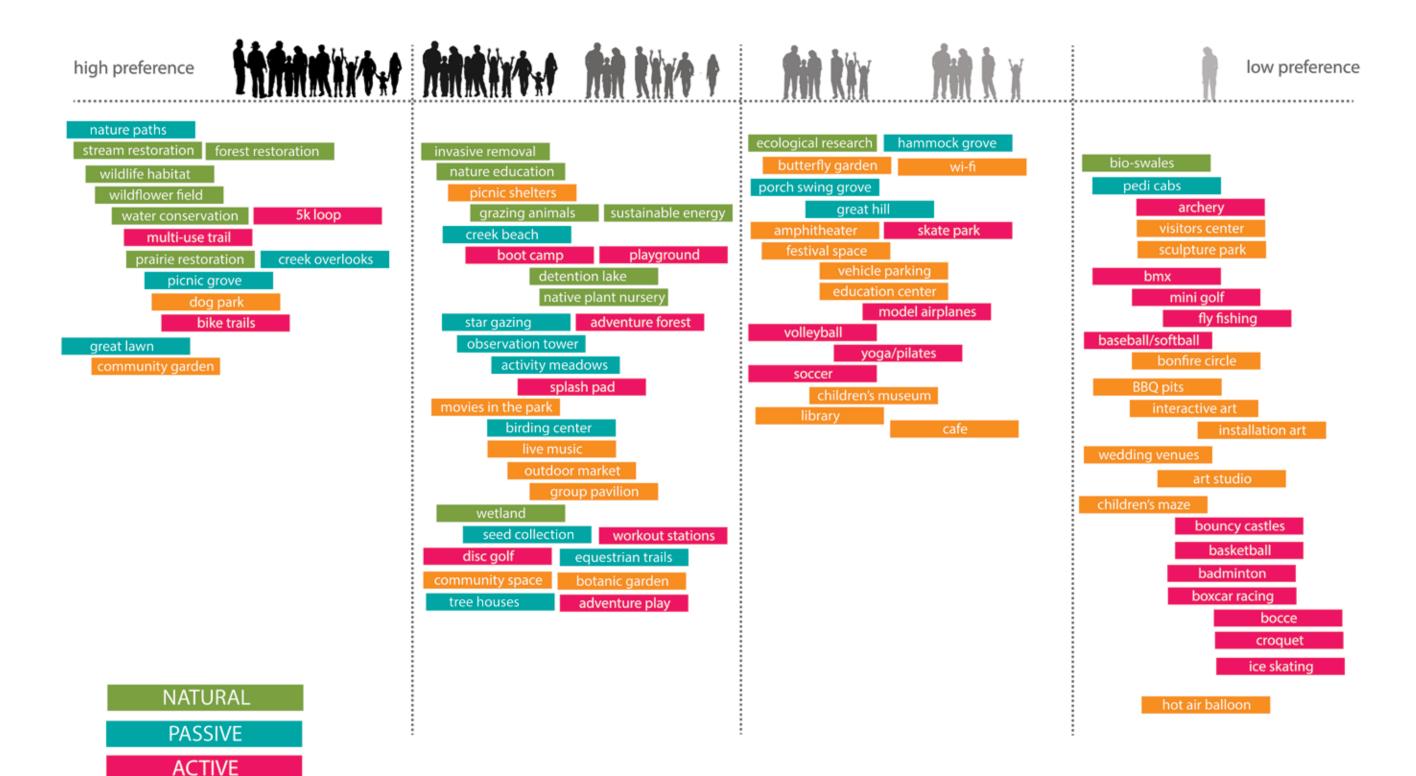
#### PARK IDEA PREFERENCES





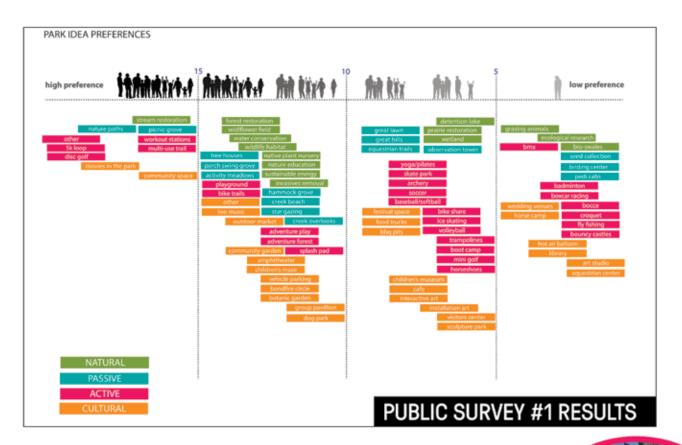
# PUBLIC SURVEY RESULTS

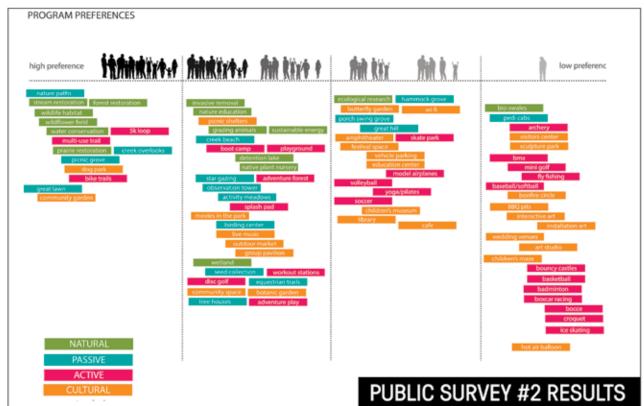
These images are graphic representations of the data collected at the public meetings combined with online survey results.



**CULTURAL** 

program typologies





### WHO + WHAT + WHEN + HOW

Public Survey Results came from comment cards filled out in person at the previous meetings as well as from online surveys that went live on the City of Austin's website after the public meeting for a period of several weeks. These results were compiled and analyzed by the team, which influenced the program distribution in the draft master plan

"Would like to see a **food garden** with low maintenance plants such as blackberries, figs, etc."

"The high preference for natural, passive and active activities in the public input. It was good to see that reflected in the plan with developed areas near roads and natural areas by the creek"

"The park should remain as NATURAL as possible..."

"Reserving land for a **future Community Center** would be beneficial for the **tremendous growth** that would be happening in the area"

"Multi-use for diverse population..."

"It is well thought out and works to meet the **needs of many park** patrons. It uses land that would otherwise be vacant"

"Want a quite place to meditate, dream and enjoy nature with lots of benches



**PUBLIC SURVEY #3 RESULTS** 

**Public Survey #3 Summary** 

